IRPL-F9

IONOSPHERIC DATA

ISSUED

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PREPARED BY INTERSERVICE RADIO PROPAGATION LABORATORY
National Bureau of Standards
Washington, D.C.

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IRPL-F9 INTERSERVICE RADIO PROPAGATION LABORATORY
NATIONAL BUREAU OF STANDARDS
WASHINGTON, D.C.

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IONOSPHERIC DATA

Final data (continued)

TERMINOLOGY

The symbols and terminology used in this report are those adopted by the International Radio Propagation Conference, and given in detail on pages 24 to 26 of the report IRPL-C61, "Report of International Radio Propagation Conference", and on pages 4 and 5 of the previous F-series reports IRPL-F1, 2, 3, 4, 5.

MONTHLY AVERAGES AND MEDIAN VALUES OF IONOSPHERIC DATA

The tables and graphs of ionospheric data presented here are assembled by the Interservice Radio Propagation Laboratory for analysis and correlation principally incidental to IRPL predictions of radio propagation conditions. These data are furnished by the following:

Carnegie Institution of Washington (Department of Terrestrial Magnetism)
- Baffin I., Canada
- Christmas I.
- Fairbanks, Alaska (University of Alaska, College, Alaska)
- Reykjavik, Iceland
- Maui, Hawaii
- Trinidad, Brit. West Indies
- Huancayo, Peru
- Watheroo, W. Australia

British National Physical Laboratory, and Inter-Services Ionosphere Bureau
- Radio Research Station, Slough, England
- Great Baddow, England
- Burghead, Scotland
- Delhi, India
- Madras, India
- Simonstown, Union of S. Africa

Australian Council for Scientific and Industrial Research
Radio Research Board, Australia
Brisbane, Q., Australia
Mt. Stromlo, Canberra, NSW, Australia
Cape York, Q., Australia.

Canadian Department of National Defence, Naval Service
Churchill, Canada
Ottawa, Canada

New Zealand Radio Research Committee
Kermadec Is.
Christchurch (Canterbury University College Observatory)
Campbell Is.
Pitcairn I.
Rarotonga I.

Ionospheric Interdepartmental Bureau, U.S.S.R. Scientific Experimental Institute of Terrestrial Magnetism, Moscow, U.S.S.R.
Tykhi Bay, U.S.S.R.
Tomsk, U.S.S.R.
Sverdlovsk, U.S.S.R.
Moscow, U.S.S.R.

National Bureau of Standards, Washington, D.C.
Stanford University, (San Francisco), California
Louisiana State University, Baton Rouge, Louisiana
University of Puerto Rico, San Juan, P.R.
United States Army Air Forces, Pacific Ocean Area
Guam I.
Kwajalein Atoll
Harvard University, Boston, Mass.

It is to be noted that following the recommendations of the International Radio Propagation Conference, held in Washington 17 April to 5 May 1944, median values of all ionospheric characteristics are reported, beginning with data for January, 1945, for Washington, for all stations reporting to the IRPL, and for the Canadian stations at Churchill and Ottawa, Canada. Conventions used in determining median values are given on page 5.

The "provisional data" tables give values as reported to the IRPL by telephone or telegraph. Any errors in these values will be corrected in later issues of the F-series reports.

The "final data" tables and graphs are correct for the values reported to the IRPL, but, because of variations in practice in the interpretation of records and scaling and manner of reporting of values, may at times give an erroneous conception of typical ionospheric characteristics at the station. Some of these errors are due to:

a. Differences in scaling records where spread echoes are present.

b. Omission of values where $f^{o}F2$ is less than or equal to $f^{o}F1$, leading to erroneously high values of monthly average or median values.

c. Omission of values where critical frequencies are less than the lower frequency limit of the recorder, also leading to erroneously high values of monthly average or median values.

These effects were discussed on pages 6 and 7 of the previous F-series reports, IRPL-F1, 2, 3, 4, and 5. Discrepancies between predicted and observed values are often ascribable to these effects.

IONOSPHERIC DATA FOR EVERY DAY AND HOUR

These data, observed at Washington, D.C., follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference", pages 36 to 39.

In determining the median values presented in this report, the following conventions have been adopted:

a. For all characteristics where the value is missing because of A, B, or C (see IRPL-C61, loc. cit.), that hour is omitted from the median count.

b. In addition,

(1) For critical frequencies:
For all layers, where a value is missing because of E (see IRPL-C61, loc. cit.), it is counted as less than the lower limit of the recorder.
Where a value is missing because of G (see IRPL-C61, loc. cit.), it is counted as less than the median count.

(2) For virtual heights:
Values missing for any reason are omitted from the median count.

(3) For muf factors:
Values missing for any reason are omitted from the median count.

IONOSPHERE DISTURBANCES

Table 48 presents ionospheric character figures for Washington, D.C., during April, 1945, as determined by the criteria presented in the report IRPL-R5, "Criteria for Ionospheric Storminess", together with American magnetic K-figures which are usually covariant with them.

Note on April Sudden Ionosphere Disturbances

The sudden ionosphere disturbances (SID) listed in Table 49 began coincidentally with the appearance of a large group of sunspots near the east limb of the sun on 25 April. Occurring over a period of five days, they were not followed by geomagnetic or ionosphere disturbances, as were those observed in December 1944.

The SID at 1303 on 25 April was observed on the British stations GLH (13525 kc) and GSP (15310 kc) only, as it occurred too early to be noted on paths not going eastward from Washington. On the other hand, the SID at 2224 on 25 April and at 2044 and 2143 on 28 April occurred too late to be observed on these paths, but were noted on the paths going westward and southward from Washington.

The SID occurring at 2224 on 25 April and at 1227 on 26 April and at 1200, 2044, and 2143 on 28 April were the only ones which were observed to affect WQXR, New York, (1560 kc). At these times propagation was normally by E layer, before the beginning and after the ending of normal daytime D-layer propagation.

During the SID some of the propagated energy of the emitted waves must have been absorbed in penetrating the D layer. However, these SID were not very intense, so it seems reasonable to assume that the increased ionization of the D layer during the SID caused a good deal of the energy of the incident waves to be reflected obliquely in the D layer below the height of maximum absorption. The received wave then is assumed to have been composed of waves propagated by D layer and slightly attenuated, combined with waves propagated by E layer but attenuated by the SID, the net result being a received intensity somewhat weaker than what would normally have resulted at that time of day when propagation would have been wholly by E layer with absorption in the D region much less than at times of SID.

On the vertical-incidence field-intensity records of WWI (2060.69 kc), some of the SID were not nearly as intense as on the higher frequency WWI records; this is evidence of reflection of these waves, like medium-frequency broadcast waves, at or below the level of maximum ionospheric absorption in the D layer.

The lowest frequency regularly recorded at Washington is WIW (700 kc), Mason, O., which was not affected by the SID, either as to strengthening of the sky wave because of increase in D-layer conductivity, or decrease of intensity because of D-layer absorption.

The SID on 26 April at 1227 GCT was more intense on the record of WVKF (12935 kc), Recife, Brazil, than on W8XAL (6080 kc), Mason, O., but less intense than on GLH (13525 kc) at Dorchester, England. This last condition possibly arose because the path to England was more in the daylight region, outweighing the fact that the path from Brazil passed closer to the subsolar point. The effect of passing closer to the subsolar point was probably illustrated in the SID of 25 Dec. 1944 at 1720 GCT

when the SID on WVKF was more intense than that on W8XAL and XEWW (9500 kc) Mexico City, although midday conditions prevailed over all the paths at that time.

ERRATA

In the section entitled "NEW STATIONS", in IRPL-F8, p.6, the last sentence under B reading "see Table 21 and Figs. 9 and 10" should read "see Table 18 and Figs. 3 and 4.

In the section entitled "IONOSPHERE DATA FOR EVERY DAY AND HOUR" the first sentence under b(3), for muf factors, "Where a value is missing etc." in IRPL-F6 through F8 should appear as a second sentence under b(1), for critical frequencies, as it does in this issue.

Table 1 (Provisional Data)

Baffin I. (70.5°N, 68.6°W) April 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	3.9						3.0
01	290	3.5						3.0
02	290	3.3						3.0
03	270	3.6						3.1
04	270	3.4						3.2
05	250	3.7	250					3.1
06	250	4.0	250	3.3	116	2.3		3.1
07	430	4.1	260	3.3	114	2.3		2.8
08	400	4.3	250	3.6	112	2.4		2.9
09	420	4.4	240	3.7	111	2.5		2.8
10	400	4.2	250	3.8	110	2.6		2.8
11	440	4.6	250	3.8	110	2.6		2.8
12	410	4.5	240	3.7	110	2.6		2.9
13	420	4.4	240	3.7	110	2.6		2.8
14	410	4.6	230	3.7	111	2.5		2.8
15	390	4.6	240	3.6	112	2.4		2.8
16	360	4.5	240	3.4	115	2.3		2.9
17	330	4.6	250	3.3				2.9
18	260	4.4	240	3.0				3.0
19	260	4.3						3.0
20	260	4.1						3.0
21	260	4.1						3.0
22	280	3.8						3.0
23	270	3.7						3.0

Time: 75°W.
Length of time sweep: 2 Mc to 16 Mc on one minute.
Median values.

Table 2 (Provisional Data)

Fairbanks, Alaska (64.9°N, 147.8°W) April 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	282	2.3				.9		2.8
01	300	2.3				.8		2.8
02	310	2.3				.9		2.8
03	325	2.7				1.1		2.8
04	320	3.1	300	2.8		1.9		2.8
05	310	3.3	260	3.0		1.9		2.8
06	410	3.8	240	3.2		2.2		2.7
07	428	4.2	225	3.5		2.4		2.8
08	440	4.2	220	3.7		2.6		2.7
09	482	4.3	220	3.8		2.7		2.6
10	450	4.4	215	3.9		2.8		2.7
11	435	4.6	218	4.0		2.8		2.7
12	430	4.7	220	4.0		2.7		2.7
13	392	4.7	220	4.0		2.8		2.8
14	375	4.7	225	4.0		3.0		3.0
15	330	4.8	225	3.9		3.0		3.0
16	250	4.8	235	3.8		3.0		3.0
17	240	4.7	225	3.5		3.1		3.1
18	250	4.6				3.1		3.1
19	260	4.6				3.0		3.0
20	250	4.4				3.0		3.0
21	260	3.6				3.0		3.0
22	260	2.8				3.0		3.0
23	275	2.6				2.9		2.9

Time: 150° W
Length of time sweep: 16 Mc to .5 Mc in fifteen minutes
Median values.

Table 3 (Provisional Data)

Reykjavik, Iceland (64.1°N, 21.7°W) April 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01	310	3.1						2.9
02	320	2.8						3.0
03	280	2.9						2.8
04	280	2.8						3.1
05	230	3.2						3.0
06	240	3.8						3.0
07	210	4.2	220	3.4	111	2.5		3.2
08	200	4.5	180	3.6	119	2.7		3.1
09	260	4.5	200	4.0	100	2.7		3.1
10	320	4.7	200	4.0	119	3.0		3.1
11	330	4.9	200	4.0	100	2.9		3.0
12	330	5.1	190	4.2	100	2.8		3.0
13	330	5.2	210	4.2	119	3.2		2.9
14	340	5.2	210	4.1	100	2.9		3.0
15	330	5.2	220	4.1	119	2.9		2.9
16	320	5.0	210	4.0	100	2.8		2.9
17	260	4.9	220	3.8	119	2.7		3.1
18	230	4.9	210	3.8	119	2.4		3.1
19	230	4.8						3.1
20	220	5.2						3.1
21								
22								
23	300	4.0						2.8

Time: 15°W
Length of time sweep: 2 Mc to 16 Mc in one minute.
Median values.

Table 4 (Provisional Data)

Churchill, Canada (58.8°N, 94.2°W) April 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.4						3.0
01		3.4						3.0
02		4.2						3.0
03		3.2						3.0
04		3.2						2.9
05		3.6						2.9
06		3.9						2.9
07		4.2						2.9
08		4.4						2.8
09		4.6						2.8
10		4.8						2.8
11		5.0						2.8
12		5.1						2.8
13		5.0						2.8
14		5.4						2.8
15		5.3						2.9
16		5.2						2.9
17		5.2						3.0
18		5.0						3.0
19		4.6						3.0
20		4.3						2.9
21		4.1						3.0
22		3.9						2.9
23		3.8						2.9

Time: 90°W
Length of time sweep: 2 Mc to 16 Mc in one minute.
Median values.

Table 5 (Provisional Data)

Ottawa, Canada (45.5°N, 75.8°W) April 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.4						2.7
01		3.2						2.8
02		3.0						2.7
03		2.9						2.6
04		2.8						2.8
05		3.2						2.8
06		4.2						3.1
07		4.7						3.2
08		5.2						3.1
09		5.5						3.1
10		5.6						3.0
11		5.8						3.0
12		5.9						3.0
13		5.9						3.0
14		6.2						3.0
15		6.1						3.0
16		6.3						3.0
17		6.3						3.0
18		6.4						3.1
19		6.3						3.1
20		5.7						3.0
21		4.9						3.0
22		4.0						2.9
23		3.7						2.8

Time: 75° W
Length of Time Sweep: 1.93 Mc to 13.5 Mc Manual operation.
Median values.

Table 6 (Provisional Data)

San Francisco, Calif. (37.4°N, 122.2°W) April 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.8						2.8
01		3.9						2.8
02		3.8						2.8
03		3.7						2.9
04		3.7						2.9
05		3.6						2.9
06		4.3						3.1
07		5.0						3.1
08		5.6						3.1
09		5.8						3.0
10		6.4						3.0
11		6.8						3.0
12		6.8						3.0
13		6.9						3.0
14		7.0						3.0
15		6.9						3.1
16		6.5						3.2
17		6.2						3.2
18		6.1						3.3
19		5.9						3.3
20		5.0						3.1
21		4.4						3.0
22		4.1						2.9
23		3.9						2.8

Time: 120° W
Length of Time Sweep: .8 Mc to 12 Mc in six minutes. Record centered on the hour.
Median values.

Table 7 (Provisional Data)

Baton Rouge, Louisiana (30.5°N, 91.2°W) April 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.9						2.8
01		4.0						2.9
02		3.9						2.9
03		3.7						3.0
04		3.6						3.0
05		3.2						3.0
06		4.6						3.2
07		5.7						3.2
08		6.1						3.1
09		6.6						3.0
10		6.7						2.9
11		7.6						2.9
12		8.3						2.9
13		8.5						2.9
14		8.8						2.9
15		8.3						3.0
16		8.2						3.1
17		8.1						3.1
18		7.6						3.1
19		7.0						3.1
20		5.6						3.1
21		4.6						3.0
22		4.0						2.8
23		3.9						2.8

Time: 90° W
Length of time sweep: 1.9 Mc to 9.8 Mc in three minutes thirty seconds
Median values.

Table 8 (Provisional Data)

Maui, Hawaii (20.8°N, 156.5°W) April 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	5.1						3.1
01	260	5.1						3.1
02	240	4.9						3.3
03	240	3.8						3.2
04	290	3.4						2.9
05	290	3.4						3.0
06	260	3.9						3.1
07	230	6.0			100			3.4
08	240	6.8	220		110	2.7		3.2
09	280	7.9	200	4.6	110	3.0		3.0
10	320	8.7	200	4.8	100	3.2		2.9
11	340	10.0	200	4.9	110	3.5		2.8
12	320	11.2	200	4.9	110	3.5		2.9
13	300	12.2	200	4.8	110	3.5		3.0
14	290	12.8	200	4.8	100	3.4		3.0
15	280	12.5	200	4.7	110	3.3		3.1
16	260	12.6	200	4.6	110	3.1		3.2
17	250	12.0	210	4.2	120	2.7		3.3
18	230	10.5	210					3.2
19	220	8.4						3.3
20	230	7.2						3.1
21	250	6.2						3.1
22	280	5.6						2.8
23	290	5.2						2.9

Time: 150°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.
Median values.

Table 9

Huancayo, Peru (12°S, 75.3°W) April 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		7.4						3.2
01		6.3						3.3
02		4.7						3.2
03		4.2						3.2
04		3.3						3.2
05		3.0						3.2
06		4.2						3.2
07		7.2						3.2
08		8.6						3.0
09		9.3						2.6
10		8.4						2.6
11		7.7						2.6
12		7.8						2.5
13		8.0						2.5
14		8.3						2.6
15		8.8						2.6
16		9.3						2.6
17		9.5						2.6
18		9.2						2.6
19		8.5						2.6
20		8.4						2.7
21		9.0						3.0
22		8.6						3.2
23		8.0						3.2

Time: 75° W.
Length of time sweep: 16 Mc to .5 Mc in fifteen minutes.
Median values.

Table 10 (Provisional Data)

Cape York, Q., Australia (11.0°S, 142.4°E) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		7.2						3.2
01		6.5						3.3
02		5.2						3.4
03		4.0						3.2
04		3.2						3.1
05		2.7						3.1
06		3.4						3.4
07		5.8						3.5
08		6.8						3.4
09		7.7						3.2
10		8.8						3.1
11		9.9						3.1
12		10.6						3.1
13		11.0						3.2
14		11.3						3.3
15		11.0						3.4
16		9.7						3.3
17		8.0						3.2
18		7.1						3.0
19		6.9						2.9
20		6.7						2.9
21		6.5						2.9
22		6.0						2.9
23		6.5						3.0

Time: 150° E
Mean values.

Table 11 (Provisional Data)

Rarontonga I. (21.4°S, 159.6°W) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01		4.8						
02								
03		4.0						
04								
05		3.7						
06								
07	247	7.0				2.3		
08								
09	274	9.0	233	4.4		3.0		
10								
11	296	10.1	225	4.7		3.2		
12								
13	281	10.5	235	4.7		3.4		
14								
15	281	9.6	236	4.4		3.2		
16								
17	260	8.9	245	3.8		2.6		
18								
19		7.4				2.5		
20								
21		6.3						
22								
23		5.9						

Time: 157.5° W.
Mean values.

Table 12 (Provisional Data)

Pitcairn I. (25.0°S, 130.0°W.) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01	238	4.79						
02								
03								
04	296	3.35						
05								
06	235	7.59	220	3.82				
07								
08	260	9.48	206	4.39				
09								
10	267	10.13	199	4.63				
11								
12	261	9.35	200	4.51				
13								
14	259	8.85	225	4.33				
15								
16								
17								
18	251	6.07						
19								
20								
21	293	5.48						
22								
23								

Time: 150° W
Length of Time sweep: Manual operation.
Mean values.

Table 13 (Provisional Data)

Brisbane, Q., Australia (27.5°S, 130°E) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.7						3.0
01		4.6						3.0
02		4.4						3.1
03		4.0						3.2
04		3.6						3.2
05		3.1						3.2
06		3.9						3.4
07		5.2						3.5
08		6.0						3.4
09		7.0						3.3
10		7.4						3.3
11		7.8						3.2
12		8.2						3.2
13		8.0						3.2
14		7.7						3.2
15		7.5						3.2
16		7.4						3.3
17		7.0						3.4
18		6.4						3.4
19		5.8						3.2
20		5.2						3.0
21		5.0						3.0
22		4.9						3.0
23		4.8						3.0

Time: Local
Length of time sweep: 2.2 Mc to 12.5 Mc in two minutes thirty seconds.
Mean values.

Table 14 (Provisional Data)

Kermadec Is. (29.2°S, 177.9°W) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	299	4.91						
01	297	4.73						
02	285	4.58						
03	286	4.19						
04	294	3.98						
05	287	3.66						
06	266	4.05						
07	261	6.58	248	3.43	128	2.10		
08	272	7.15	242	3.96	119	2.62		
09	273	7.49	237	4.31	117	2.90		
10	287	7.36	227	4.46	115	3.11		
11	295	7.83	222	4.55	115	3.22		
12	297	8.42	240	4.57	118	3.29		
13	295	8.35	234	4.55	124	3.32		
14	289	7.82	244	4.56	124	3.24		
15	295	7.55	251	4.34	131	3.05		
16	284	7.53	264	4.09	117	2.80		
17	273	7.49	258	3.61	123	2.39		
18	268	7.01	255	2.87		1.83		
19	256	6.59						
20	278	5.71						
21	290	5.52						
22	292	5.42						
23	293	5.23						

Time: Local.
Mean values.

Table 15 (Provisional Data)

Watheroo, W. Australia (30.3°S, 115.9°E) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.8						2.9
01		3.7						2.9
02		3.6						3.0
03		3.4						3.0
04		3.2						3.0
05		3.1						3.0
06		3.7						3.3
07		5.0						3.4
08		5.5						3.4
09		5.9						3.2
10		6.4						3.1
11		7.0						3.0
12		7.5						3.0
13		7.7						3.1
14		7.5						3.1
15		7.2						3.1
16		7.0						3.2
17		6.7						3.3
18		6.2						3.3
19		5.4						3.2
20		5.0						3.0
21		4.4						3.0
22		4.1						2.9
23		3.9						2.9

Time: 120°E.
Length of time sweep: 16 Mc to 0.5 Mc in fifteen minutes.
Mean values.

Table 16 (Provisional Data)

Mt. Stromlo, NSW, Australia (35.3°S, 149.0°E) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.3						3.0
01		4.2						3.0
02		4.0						3.0
03		3.7						3.0
04		3.4						3.0
05		3.2						3.0
06		3.8						3.1
07		4.8						3.1
08		5.3						3.1
09		5.7						3.1
10		6.3						3.1
11		6.7						3.0
12		6.8						3.0
13		7.1						3.0
14		6.9						3.2
15		6.6						3.1
16		6.4						3.1
17		6.4						3.1
18		6.4						3.2
19		6.0						3.0
20		5.5						3.0
21		4.9						2.9
22		4.7						2.9
23		4.6						2.9

Time: 150° E
Length of time sweep: 16 Mc to 12.5 Mc in two minutes.
Mean values.

Table 17 (Provisional Data)

Campbell I (52.5°S, 169.0°E) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05	292	2.73						
06								
07	254	4.31	219	3.14				
08								
09	293		220	3.86	103	2.81		
10								
11	295		212	3.98	106	2.96		
12			212	3.87	104	3.05		
13			220		108	2.92		
14								
15	277		220	3.78	106	2.73		
16								
17	249	5.43						
18								
19	263	5.24						
20								
21	284	3.82						
22								
23	324	3.31						

Time: 165° E.
Mean values.

Table 18

Washington (39.0°N, 77.4°W) April 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	280	3.7						2.8
01	280	3.4						2.9
02	280	2.7					1.0	2.9
03	260	2.6					1.0	2.9
04	260	2.2						3.0
05	280	2.4						3.0
06	240	3.9			120	1.8	2.9	3.2
07	260	5.0	240	3.7	120	2.3	3.0	3.2
08	300	5.3	220	4.0	120	2.8	3.1	3.1
09	320	5.5	220	4.2	120	3.1	3.2	3.0
10	320	5.8	220	4.4	120	3.2	3.1	3.1
11	320	6.2	220	4.5	120	3.3		3.0
12	330	6.4	220	4.6	120	3.4		3.0
13	320	6.6	220	4.5	120	3.4		3.1
14	320	6.4	220	4.4	120	3.3	3.4	3.1
15	310	6.5	220	4.3	120	3.2		3.0
16	300	6.4	230	4.1	120	2.9	3.0	3.1
17	280	6.4	240	3.7	120	2.5	2.9	3.1
18	260	6.6	240	3.2	120	1.9	2.4	3.1
19	240	6.6					1.8	3.1
20	240	5.8						3.0
21	240	5.0						3.0
22	270	4.4						2.9
23	280	4.0						2.8

Time: 75°W.
Length of time sweep: .8 Mc to 14 Mc in 2 minutes.
Median values.

Table 19

(Corrections and additions to previously published provisional data)

Fairbanks, Alaska (64.9°N, 147.8°W) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00							3.5	
01		2.0					3.6	
02							3.6	
03							3.5	
04							3.2	
05							3.1	
06							1.6	
07						2.0	2.1	
08							2.3	
09								
10	305							
11								
12								
13								
14								
15			240			2.2		
16								
17								
18						1.3	1.6	
19							1.6	
20							2.9	
21							3.0	
22							3.2	
23							4.3	

Time: 150°W.
Length of time sweep: 16 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 20

(Corrections and additions to previously published provisional data)

Churchill, Canada (58.8°N, 94.2°W) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	280						6.6	
01	350	3.1					5.6	
02	300						4.8	
03	320	2.9					3.8	
04	370						3.6	
05	310						4.0	
06	320						3.8	
07	290						4.0	
08	320		245	3.4			3.8	
09	335		240	3.7	120	2.8		
10	350		240	3.8	115	2.9		
11	330		240	3.9	120	3.0		
12	330		240	4.0	120	3.0		
13	330		240	3.9	120	3.1		
14	340		240	3.9	120	2.9		
15	325	5.2	240	3.7	125	2.8		
16	310	5.2	240	3.5	120	2.7		3.0
17	290	5.2	255	3.3	120	2.7	2.7	
18	280						3.3	
19	280	4.4					3.7	
20	310	4.0					3.8	
21	290	3.4					4.0	
22	320						5.6	3.0
23	310	3.5					6.0	3.0

Time: 90°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.
Median values.

Table 21

(Corrections and additions to previously published provisional data)

Maui, Hawaii (20.8°N, 156.5°W) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								3.3
03								
04	225							
05								
06	295							
07								
08	225							
09	265		205					
10								
11			195		105			
12					105		4.2	
13					105		4.4	
14					105			3.1
15			205		105			
16	245		210					
17			215		115			
18								
19	215	6.1						
20	225							
21								
22								
23								

Time: 150°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.
Median values.

Table 22

(Corrections and additions to previously published provisional data)

Huancayo, Peru (12°S, 75.3°W) March 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	230							
01	230							
02	230							
03	240	4.2						
04	250							
05	260	2.4						
06	260	4.0				1.4	2.4	
07	240					2.4	3.0	
08	280		230	4.4		3.0	4.6	
09	310		220	4.5			4.8	
10	330		220	4.6			4.8	
11	340		218	4.7			4.9	
12	340		200	4.7			4.8	
13	330	8.7	210	4.6			4.8	
14	320		200	4.5			4.7	
15	300		200	4.3		3.2	4.6	
16	230		200	4.1		3.0	4.4	
17	240					2.5	3.2	
18	260					1.6	2.4	
19	300							
20	300							
21	260							
22	250							
23	240							

Time: 75°W.
Length of time sweep: 16 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 23

(Corrections and additions to previously published provisional data)

Burghead, Scotland (57.7°N, 3.5°W) February 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.3						
01		2.2						
02		2.2						
03		2.0						
04								
05		1.8						
06		1.8						
07		2.2						
08		3.7						
09								
10								
11		5.7						
12		6.1						
13		6.4						
14								
15		5.7						
16								
17		5.4						
18		4.7						
19		4.2						
20		3.0						
21		2.8						
22								
23		2.3						

Time: 0°
Median values.

Table 24

(Additions to previously published provisional data)

Slough, England (51.5°N, 0.5°W) February 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.1						
01		3.2						
02		3.2						
03		3.0						
04		2.8						
05		2.5						
06		2.2						
07		3.1						
08		4.9						
09		5.5						
10		5.9						
11		6.3						
12		6.5						
13		6.3						
14		6.4						
15		6.2						
16		5.9						
17		5.5						
18		4.6						
19		3.9						
20		3.4						
21		3.1						
22		3.2						
23		3.0						

Time: 0°
Median values.

Table 25

(Corrections and additions to previously published provisional data)

Watheroo, W. Australia (30.3°S, 115.9°E) February 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	265	3.9					2.8	
01	260	3.9					2.9	
02	245	3.7					3.1	
03	252	3.5					3.2	
04	242	3.1					3.2	
05	250	2.9					3.0	
06	242	3.8				1.5	2.7	
07	252	4.8				2.2	3.2	
08	305	5.3	220	4.0		2.7	3.8	3.2
09	320	5.4	210	4.3		3.0	3.8	3.1
10	322	5.8	205	4.4		3.2	3.8	
11	330	6.2	200	4.4		3.3	4.1	
12	330	6.8	218	4.5		3.3	4.1	
13	315	7.1	215	4.5		3.3	4.1	
14	320	7.1	220	4.4		3.3	4.0	
15	300	7.6	220	4.3		3.2	3.8	3.1
16	280	6.9	222	4.1		2.9	3.8	
17	270	6.5	220	3.8		2.6	3.8	
18	250	6.2				2.0	3.1	
19	230	6.0					2.7	
20	230	5.5					2.6	
21	240	4.6					2.6	
22	258	4.1					2.3	
23	262	4.0					2.6	

Time: 120°E.
Length of time sweep: 16 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 26

Simonstown U. South Africa February 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.9						3.0
01		3.7						3.1
02		3.6						3.1
03		3.4						3.0
04		3.4						3.1
05		3.4						3.1
06		3.6						3.1
07		4.6						3.1
08		5.9						3.1
09		6.2						3.0
10		6.6						2.9
11		7.2						3.0
12		7.8						3.0
13		7.6						3.0
14		7.7						2.8
15		8.0						2.9
16		7.8						3.0
17		7.4						3.1
18		6.9						3.0
19		6.5						3.2
20		5.6						3.2
21		5.5						3.1
22		4.6						3.2
23		4.2						3.1

Time: 15°E.
Length of time sweep: 2 Mc to 16 Mc in one minute.
Median values.

Table 27

(Corrections and additions to previously published provisional data)

Christchurch, N.Z. (43.5°S, 172.6°E) February 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	4.8					3.0	
01	280	4.3					3.0	
02							3.1	
03	260						3.1	
04	250	2.9					3.2	
05	260					1.5	2.8	
06	240					2.0	2.8	
07	280						3.3	
08	300		240		100		3.8	
09	300	5.6				3.0	3.9	
10	300	6.0	210			3.0	3.9	
11	310	6.1	200			3.2	3.9	
12		6.1	210			3.1	4.0	
13			210				3.9	
14		6.4				3.3	3.6	
15	310	6.0					3.5	
16	300	6.1				3.0	3.5	
17							3.5	
18		6.5	250				3.6	
19	250	6.8					3.5	
20	250	6.6					3.5	
21	250	6.8					4.0	
22		5.5					4.4	
23		4.8					3.5	

Time: 172.5°E.
Length of time sweep: 2.5 Mc to 12 Mc in two minutes.
Median values.

Table 28

(Corrections to previously published provisional data)

Slough, England (51.5°N, 0.5°W) January 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.9						
01		2.9						
02		2.8						
03		2.6						
04								
05		2.2						
06								
07		2.1						
08		4.2						
09		5.6						
10								
11								
12		6.5						
13								
14		6.0						
15		5.8						
16		5.1						
17		4.5						
18								
19		2.8						
20								
21								
22								
23								

Time: 0°
Median values.

Table 29

(Corrections and additions to previously published provisional data)

Watheroo, W. Australia (30.3°S, 115.9°E) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	4.6					4.0	
01	265	4.1					4.2	
02	260	3.7					3.9	
03	260	3.3					3.1	3.0
04	260						2.8	2.9
05	265	3.0					2.8	2.9
06	245	4.0				1.8	2.5	
07	315	4.7	230	3.8		2.5	3.8	3.0
08	350	5.2	220	4.1		2.8	4.4	
09	350	5.5	210	4.3		3.0	4.3	
10	370	5.8	220	4.4		3.2	4.1	
11	360	6.3	220	4.5		3.3	4.1	
12	355	6.6	212	4.5		3.4	5.4	2.8
13	340	7.2	212	4.5		3.2	4.4	
14	320		215	4.4		3.3	4.8	
15	300		220	4.3		3.2	4.7	3.0
16	300	6.6	220	4.2		3.0	4.1	3.1
17	280	6.2	215	3.9		2.7	4.0	
18	265	5.4				2.7	3.4	
19	250	5.1					3.2	3.1
20	250	5.3					2.9	
21	260						2.7	
22	280						3.0	
23	272	4.6					3.9	2.9

Time: 120°E.
Length of time sweep: 16 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 30

(Corrections and additions to previously published provisional data)

Baffin I., Canada (70.5°N, 68.6°W) December 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								3.2
01								
02								3.1
03								
04								3.2
05								3.3
06		2.30						3.1
07								3.3
08								3.2
09								3.3
10								3.4
11								3.3
12								3.3
13								3.3
14								3.3
15								3.3
16								3.3
17								3.3
18								3.3
19								3.3
20							2.4	3.3
21								3.5
22								3.3
23								3.6

Time: 75°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.
Mean values.

Table 31

(Corrections and additions to previously published provisional data)

Baffin Is., Canada (70.5°N, 68.6°W) November 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								3.2
03								3.3
04								3.2
05								3.2
06								3.3
07								3.4
08								
09								3.3
10								3.4
11								3.4
12								3.4
13								3.4
14								3.4
15							2.2	3.3
16								3.3
17								3.3
18							2.3	3.3
19								3.3
20								3.4
21								3.3
22								3.3
23								3.4

Time: 75°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.
Mean values.

Table 32

(Corrections and additions to previously published provisional data)

Baffin Island, Canada (70.5°N, 68.6°W) October 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								3.3
01								3.3
02								3.4
03							2.4	3.3
04							2.4	3.2
05							2.8	
06							2.6	3.2
07								3.3
08	250							3.4
09				3.10			2.2	3.4
10								3.3
11								3.2
12								3.3
13								3.2
14				2.98				3.2
15								3.2
16								3.2
17								3.3
18								3.3
19								3.3
20								3.3
21								
22							2.3	3.3
23								3.2

Time: 75°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.
Mean values.

Table 33

(Additions to previously published final data)

Slough, England (51.5°N, 0.6°W) October 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	339							2.8
01	341							2.8
02	348							2.8
03	330							2.9
04	313							3.0
05	290							3.1
06	267							3.1
07	248							3.4
08	241							3.5
09	245							3.5
10	245							3.5
11	252							3.4
12	252							3.4
13	246							3.4
14	255							3.4
15	255							3.5
16	244							3.4
17	254							3.3
18	268							3.3
19	260							3.3
20	283							3.2
21	319							2.9
22	339							2.8
23	343							2.8

Time: 0°
Mean Values.

Table 34

(Corrections and additions to previously published provisional data)

Baffin Island, Canada (70.5°N, 68.6°W) September 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								3.3
01								3.2
02								3.3
03	259							3.2
04								3.2
05								3.3
06								
07								3.2
08								
09					122			
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								3.2
22								3.3
23								3.3

Time: 75°W.
Length of time sweep: 2 Mc to 16 Mc in one minute. Supplemented by manual apparatus with low frequency limit 1.6 Mc.
Mean values.

TABLE 35
IONOSPHERE DATA—I

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $h'F2$ in ☐ km for April (Month) 1945

Records measured by: M.R.R. A.F.

TIME: 75°W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	250	[270]$^{C}_{K}$	[320]$^{C}_{K}$	[320]$^{C}_{K}$	[300]$^{C}_{K}$	[320]$^{C}_{K}$	[280]$^{C}_{K}$	[520]$^{C}_{K}$	[500]$^{C}_{K}$	(770)^{K}	G ^{K}	G ^{K}	G ^{K}	680^{K}	540^{K}	520^{K}	[430]$^{C}_{K}$	[270]$^{C}_{K}$	[260]$^{C}_{K}$	[250]$^{C}_{K}$	[260]$^{C}_{K}$	[290]$^{C}_{K}$	[320]$^{C}_{K}$	[320]$^{C}_{K}$
2	[270]$^{C}_{K}$	[280]$^{C}_{K}$	[260]$^{C}_{K}$	[320]$^{C}_{K}$	[360]$^{C}_{K}$	[310]$^{C}_{K}$	[300]^{C}	[240]^{C}	[220]^{C}	[410]^{C}	360	[380]^{A}	360	(360)	320	300	300	280	240	240	240	240	280	280
3	[300]^{C}	[270]^{C}	[260]^{C}	[250]^{C}	[240]^{C}	[250]^{C}	[240]^{C}	[230]^{C}	220	[300]^{C}	310	300	310	280	300	300	280	260	240	230	220	240	280	280
4	280	280	280	280	280	260	260	230	260	300	340	320	360	310	300	300	280	260	240	220	240	240	260	250
5	250	260	260	280	250	260	240	240	300	340	320	300	340	380	390	320	320	280	240	[230]^{C}	[220]^{C}	[300]^{C}	[320]^{C}	[320]^{C}
6	300	[300]^{C}	[270]^{C}	[270]^{C}	280	320	240	[250]^{C}	[280]^{C}	300	320	310	320	310	300	300	280	260	240	220	230	260	280	300
7	280	280	270	280	280	280	260	240	280	300	320	320	320	320	(300)	280	280	280	260^{K}	220^{K}	240^{K}	220^{K}	280^{K}	280^{K}
8	280^{K}	280^{K}	260^{K}	280^{K}	300^{K}	300^{K}	260^{K}	360^{K}	(380)^{K}	400^{K}	G ^{K}	540^{K}	460^{K}	420^{K}	400^{K}	380^{K}	340^{K}	320^{K}	260	240	240	260	280	300
9	300	300	280	280	260	280	240	240	300	280	280	320	350	320	320	310	300	260	260	240	250	240	260	280
10	280	280	280	260	250	270	240	260	280	260	320	320	340	300	300	300	280	270	240	240	220	220	280	290
11	300	280	280	260	280	(300)	240^{K}	400^{K}	G ^{K}	520^{K}	540^{K}	400^{K}	400^{K}	420^{K}	520^{K}	380^{K}	380^{K}	360^{K}	300^{K}	240^{K}	240^{K}	260^{K}	260^{K}	300^{K}
12	300^{K}	300^{K}	260^{K}	240^{K}	260^{K}	320	280	240	340	360	360	300	320	300	300	320	300	300	260	240	240	240	260	250
13	260	280	280	240	280	260	260	280	(340)	400	400	340	360	320	320	340	320	300	280	240	240	280	300	290
14	280	280	280	280	280	300	260	220	540	420	380	400	340	340	340	360	320	280	240	240	240	260	260	280
15	300	260	280	280	260	240	200$^{H}_{K}$	400^{K}	420^{K}	640^{K}	460^{K}	(500)^{K}	G ^{K}	500^{K}	420^{K}	440^{K}	380^{K}	340^{K}	280^{K}	240^{K}	240^{K}	280^{K}	(310)^{K}	300^{K}
16	300^{K}	300^{K}	280^{K}	260^{K}	280^{K}	300	240	240	360	340	340	360	340	330	[310]^{C}	340	300	270	260	240	230	240	260	280
17	280	270	260	250	240	260	240	(260)	360	320	300	300	320	330	310	320	300	280	260	240	220	240	280	280
18	290	280	280	260	240	280	260	260	280	340	270	320	310	320	320	310	290	280	260	230	[220]^{A}	250	260	280
19	280	280	280	280	230	280	240	240	320	320	340	360	310	300	300	320	300	300	280	220	240	260	280	280
20	280	240	300	280	260	260	240	260	260	300	320	340	300	300	300	340	300	280	260	240	220	230	240	280
21	280	280	280	260	280	280	260	300	300	300	320	320	350	350	340	320	310	280	260	240	240	240	260	260
22	260	260	230	240	260	240	240	260	300	300	280	300	340	(280)	320	320	310	260	250	230	220	220	260	280
23	280	280	260	240	240	280	240	380	340	360	280	320	340	300	340	310	280	280	260	260	240	260	260	280
24	280	260	280	260	240	260	230	240	260	300	320	320	300	300	300	310	280	260	250	220	240	240	280	280
25	260	240	240	220	[280]^{B}	290	260	320	320	350	(380)	360	320	300	320	300	280	260	260	240	220	220	240	280
26	260	280	280	260	280	240	240	280	300	280	320	360	350	310	300	300	280	280	260	240	220	240	280	280
27	280	260	240	260	240	260	240	280	320	320	320	310	300	310	320	300	[300]^{B}	300	280	240	220	220	240	260
28	270	280	280	260	260	240	240	[270]^{C}	[270]^{C}	300	340	340	300	310	300	300	300	280	260	240	240	240	260	260
29	260	240	280	240	260	260	260	280	320	320	320	320	320	300	320	300	300	280	260	240	240	240	260	280
30	260	280	260	280	280	240	240	280	400	380	320	320	320	320	320	300	290	260	240	240	240	[280]^{C}	280	280
31																								
Sum																								
Median	280	280	280	260	260	280	240	260	300	320	320	320	330	320	320	310	300	280	260	240	240	240	270	280

TABLE 36

IONOSPHERE DATA—2

RESTRICTED

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Hourly values of $f^{\circ}F_2$ in Mc for April 1945
(Month)

Records measured by: M.R.R., A.F.

TIME: 75°W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4.3	[3.5]$^{C}_{K}$	[2.4]$^{C}_{K}$	[2.3]$^{C}_{K}$	[2.7]$^{C}_{K}$	[3.2]$^{C}_{K}$	[4.1]$^{C}_{K}$	[3.9]$^{C}_{K}$	[4.2]$^{C}_{K}$	[3.9]$^{C}_{K}$	<3.9$^{G}_{K}$	<4.0$^{G}_{K}$	<4.2$^{G}_{K}$	(4.4)^{K}	(4.5)^{A}	4.5^{K}	[4.7]$^{C}_{K}$	[4.8]$^{C}_{K}$	[4.6]$^{C}_{K}$	[4.0]$^{C}_{K}$	[3.5]$^{C}_{K}$	[2.8]$^{C}_{K}$	[2.6]$^{C}_{K}$	[2.3]$^{C}_{K}$
2	[2.3]$^{C}_{K}$	[2.1]$^{C}_{K}$	[1.8]$^{C}_{K}$	[1.1]$^{C}_{K}$	[1.0]$^{C}_{K}$	[1.5]$^{C}_{K}$	[3.1]^{C}	[3.8]^{C}	[4.2]^{C}	[4.9]^{C}	5.5	[5.5]^{A}	5.6	5.9	6.4	6.5	6.1	6.0	5.7	5.6	4.9	4.0	3.5	3.4
3	[3.2]^{C}	[3.1]^{C}	[2.7]^{C}	[2.2]^{C}	[1.9]^{C}	[1.6]^{C}	[3.8]^{C}	[5.0]^{C}	5.5	[5.8]^{C}	6.6	7.0	(7.4)	7.4	7.4	7.0	7.1	7.0	7.3	6.8	5.8	4.5	4.2	4.0
4	3.8	3.5	3.4^{F}	3.2^{F}	2.9^{F}	2.6^{F}	3.7	5.2	5.4	5.5	6.4	7.1	7.0	7.6	(7.6)	7.0	[7.0]^{C}	6.8	7.0	6.5	5.8	5.4	4.7	4.4
5	3.9	3.4	3.3	3.1	2.9	2.6	3.6	(4.2)	4.7	5.4	5.6	5.9	6.0	6.2	6.4	(8.4)	(7.2)	(8.6)	(7.2)	[6.4]^{C}	[4.1]^{C}	[3.1]^{C}	[2.7]^{C}	[2.7]^{C}
6	(2.6)^{F}	[2.4]^{C}	[2.3]^{C}	2.1^{F}	(1.8)^{F}	2.2^{F}	4.6	[5.5]^{C}	[5.6]^{C}	5.7	(6.6)	6.6	6.4	(7.2)	7.6	7.6	6.8	6.8	6.8	6.4	5.6	(5.2)	4.4	4.0
7	3.7	(3.4)^{F}	2.3^{F}	2.2^{F}	2.2^{F}	2.3^{F}	3.9	5.1	5.7	5.8	6.0	6.3	6.8	6.8	6.8	7.2	6.7	(7.0)	(7.6)^{K}	(6.9)^{K}	6.2^{K}	4.9^{K}	4.3^{K}	4.2^{K}
8	3.9^{K}	3.3$^{F}_{K}$	2.6$^{F}_{K}$	1.7$^{F}_{K}$	1.4$^{F}_{K}$	1.5$^{F}_{K}$	3.4^{K}	4.0^{K}	4.5^{K}	4.7^{K}	<4.2$^{G}_{K}$	4.6^{K}	4.8^{K}	5.0^{K}	5.1^{K}	5.0^{K}	5.1^{K}	5.0^{K}	5.1	4.5	3.8^{F}	3.3^{F}	3.0^{F}	2.8^{F}
9	2.5^{F}	2.4^{F}	2.2^{F}	2.0^{F}	2.0^{F}	1.6^{F}	3.5	4.4	5.5	6.0	5.7	5.8	5.9	6.2	6.2	6.4	6.2	6.0	5.7	5.7	5.3	(4.2)^{F}	3.8^{F}	3.4^{F}
10	3.1^{F}	2.8^{F}	2.7^{F}	2.5^{F}	2.2^{F}	2.0^{F}	4.2	5.0	5.5	5.4	5.7	6.4	6.6	6.8	6.4	6.4	6.4	6.6	6.6	6.6	5.7	4.4	(3.5)	3.1^{F}
11	2.8^{F}	2.9^{F}	2.5^{F}	2.2^{F}	1.8^{F}	(1.6)^{F}	3.4^{K}	4.1^{K}	<4.1$^{G}_{K}$	4.2^{K}	4.5^{K}	5.1^{K}	5.2^{K}	4.9^{K}	4.6^{K}	5.1^{K}	5.0^{K}	5.0^{K}	5.4^{K}	6.4^{K}	6.0^{K}	4.8$^{F}_{K}$	4.1^{K}	3.8^{K}
12	3.6^{K}	3.6^{K}	3.9^{K}	2.8$^{F}_{K}$	(1.6)$^{F}_{K}$	(1.7)^{F}	3.3	4.1	4.8	5.4	5.7	6.4	6.4	6.6	6.4	6.4	6.4	6.7	7.2	(6.8)	6.2	5.1	(4.8)	(4.6)^{F}
13	3.6^{F}	(3.5)^{F}	2.7^{F}	2.4^{F}	1.8^{F}	1.7^{F}	3.5	4.1	4.5	4.9	5.3	5.6	5.7	5.6	5.8	5.6	5.7	5.8	5.6	5.7	(5.3)	4.3	4.0	3.6^{F}
14	(3.2)^{F}	3.1^{F}	2.2^{F}	2.1^{F}	1.6^{F}	1.6^{F}	3.4	3.8	4.1	4.5	5.0	5.1	5.6	5.3	5.7	5.9	6.2	5.8	5.8	5.8	5.1	4.2	3.7	3.5^{F}
15	3.3^{F}	3.2	2.7^{F}	2.6	2.3	2.2^{F}	3.5$^{H}_{K}$	4.1^{K}	4.3^{K}	4.2^{K}	4.6^{K}	4.5^{K}	<4.2$^{G}_{K}$	4.7^{K}	4.8^{K}	4.6^{K}	4.7^{K}	4.8^{K}	4.8^{K}	4.5^{K}	3.9^{K}	3.1^{K}	2.7$^{F}_{K}$	2.4$^{F}_{K}$
16	2.1$^{F}_{K}$	1.9$^{F}_{K}$	1.7$^{F}_{K}$	1.4$^{F}_{K}$	(1.2)$^{F}_{K}$	1.7^{F}	3.7	4.4	4.7	5.0	5.4	5.4	5.9	5.8	6.0	5.8	6.1	5.8	5.7	5.5	5.0	4.3	3.8	3.4^{F}
17	3.2^{F}	2.7^{F}	2.6^{F}	2.5^{F}	2.0^{F}	2.0^{F}	3.9	4.6	4.9	5.7	5.6	5.7	5.8	6.0	6.1	5.7	5.8	5.9	6.4	6.6	5.5	4.1	3.6^{F}	3.4
18	3.4	3.2	3.0^{F}	2.8^{F}	2.6	2.5	4.0	5.0	5.2	5.8	(6.2)	6.1	6.1	6.4	6.3	6.4	6.4	6.7	(6.9)	6.6	[6.0]^{A}	5.2	4.4	3.9
19	3.7	3.4	3.4	3.2	2.5	2.3	3.7	4.5	5.1	5.5	(6.2)	6.2	6.7	6.5	6.4	6.6	6.2	6.0	6.6	6.6	5.7	5.0	4.4	4.1
20	3.7	3.3	(2.6)	2.6	2.1	2.5	4.7	(6.1)	5.9	6.2	6.4	6.4	(6.8)	(6.6)	6.0	5.9	6.0	6.4	6.5	(7.2)	6.5	5.1	3.9	3.6
21	3.2^{F}	3.1	2.7	2.6	2.4	2.6	4.2	5.1	5.5	5.5	5.6	5.6	5.8	5.6	5.8	6.0	6.0	5.8	5.9	6.4	6.6	5.7	5.1^{F}	4.6^{F}
22	4.1^{F}	3.7	3.2^{F}	(2.9)^{F}	2.8^{F}	2.8	4.7	5.5	6.0	6.5	(7.0)	6.8	6.6	[6.6]^{C}	6.7	7.0	6.8	7.2	7.2	(7.0)	6.8	5.1	4.6	4.4
23	4.3	3.9	3.6	3.4	2.9	2.7	3.8	4.6	5.0	5.4	6.4	6.2	6.4	6.5	6.2	7.0	6.4	5.9	5.8	5.9	5.8	5.2	4.6	4.1
24	4.2	3.7	3.3	3.1	2.8	3.1	4.6	5.4	(6.0)	6.2	6.8	6.8	(6.8)	7.4	7.0	7.0	7.4	6.4	6.6	(6.6)	6.0	5.0	4.7	4.6
25	4.6	3.8^{J}	3.5^{J}	(2.8)	[2.1]^{B}	2.5	4.0	4.9	5.1	5.4	5.1	5.8	7.2	6.6	6.7	[6.5]^{B}	6.8	6.5	6.5	6.4	6.4	5.4	4.7	4.0
26	3.8	3.4	3.3	3.1	3.1	3.1	4.4	5.2	5.9	6.5	6.0	6.2	6.5	6.6	6.8	6.8	6.6	6.6	(6.5)	6.8	6.2	5.6	5.1	4.8
27	4.6	4.5	3.9	3.4	3.1	3.2	4.5	5.3	5.9	6.3	6.4	6.6	6.6	6.6	6.8	7.0	[6.6]^{B}	(6.6)	(6.7)	6.8	6.6	5.7	5.1	4.5
28	4.2	4.2	3.9	3.7	3.6	3.8	5.6	[6.0]^{C}	[6.2]^{C}	6.4	6.3	7.0	6.6	6.8	6.7	(8.4)	8.0	7.6	7.2	(7.0)	6.8	5.9	5.6	5.2
29	5.0	4.5	4.1	3.7	3.4	3.3	4.4	5.0	5.7	5.7	6.4	7.2	6.7	(8.0)	8.0	7.8	7.7	(7.2)	(7.4)	6.6	6.6	5.4	4.9	4.7
30	4.4	4.1	3.6	3.6	3.2	3.3	5.1	5.6	5.5	5.6	6.3	6.5	6.4	(6.9)	(6.8)	9.0	8.6	8.2	7.4	6.6	6.4	[5.8]^{C}	5.5	5.1
31																								
Sum																								
Median	3.7	3.4	2.7	2.6	2.2	2.4	3.9	5.0	5.3	5.5	5.8	6.2	6.4	6.6	6.4	6.5	6.4	6.4	6.6	6.6	5.8	5.0	4.4	4.0

TABLE 37
IONOSPHERE DATA—3

RESTRICTED

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Half Hourly values of $f^{\circ}F_2$ in $\{M^{o}$ for April 1945
(Month)

Records measured by: M.R.R.
A.F.

TIME: 75° W MERIDIAN

Day	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
1	4.0	[3.3]C K	[3.5]C K	[3.3]C K	3.1 F K	[3.8]C K	4.0 K	[4.0]C K	[4.3]C K	<[3.8]C K	<[3.9]C K	<4.1 K	~4.2 G K	4.5 K	4.6 K	4.7 K	[4.8]C K	[4.7]C K	4.3 K	[3.7]C K	[3.3]C K	[3.6]C K	[3.4]C K	[3.3]C K
2	[3.3]C K	[3.8]C K	[3.5]C K	(0.9) F K	(1.0) F K	[3.3]C K	[3.6]C	[4.0]C	[4.6]C	[5.1]C	5.6	5.6	5.7	6.0	6.1	6.3	5.7	6.0	5.8	5.3	4.4	3.6	3.5	3.4
3	3.2 F	[2.9]C	[2.5]C	[2.0]C	[1.7]C	[2.3]C	[4.6]C	[5.5]C	5.6	6.4	7.0	7.0	(7.3)	7.2	7.0	7.0	7.1	6.9	7.2	6.5	4.8	4.3	4.1	3.9
4	3.6 F	3.5 F	3.3 F	2.9 F	2.7 F	3.0 F	4.7	5.6	5.5	5.7	6.8 H	7.2	7.5	(7.6)	(7.5)	7.0	7.0	(7.0)	7.0	6.0	5.6	5.0	4.8	4.3
5	3.6	3.4	3.2	3.1	2.8 F	3.0	3.9	4.8	5.5	5.5	5.8	5.8	6.2	6.4	6.5	(7.4)	(8.0)	(8.4) J	6.6	[5.2]C	[3.5]C	[2.8]C	[2.7]C	2.4 F
6	[2.5]C	[2.5]C	2.1 F	2.2 F	1.6 F	3.7 F	[4.9]C	[5.5]C	[5.8]C	6.2	6.5	6.8	7.0	7.0	7.6	7.8	6.8	7.0	(6.6)	6.2	5.5	4.8	4.0	3.9
7	3.5 F	(2.8) F	2.2 F	2.2 F	2.3 F	2.9 F	4.5	5.7	5.6	6.0	6.0	6.0	6.7	(6.5)	7.4	6.8	6.6	6.8	(8.0) K	(6.4) K	5.5 K	4.4 K	4.3 K	4.1 K
8	3.6 K	2.9 F K	2.1 F K	1.6 F K	1.4 F K	2.2 F K	3.7 K	4.1 K	4.5 K	4.5 K	<4.2 G K	4.7 K	5.0 K	5.0 K	5.1 K	5.0 K	4.9 K	5.1 K	5.0	4.2	3.7 F	3.2 F	3.0 F	2.8 F
9	2.5 F	2.3 F	2.1 F	2.0 F	1.7 F	2.3 F	4.3	5.0	5.5	[5.9]C	5.7	5.7	6.0	6.2	6.2	6.3	6.3	5.9	5.7	5.7	4.8	4.0 F	3.6 F	3.2 F
10	2.9 F	2.8 F	2.7 F	2.4 F	1.9 F	2.8 F	4.6	5.0	5.9	5.6	5.9	6.4	6.6	6.6	6.6	6.4	6.6	6.6	6.7	6.2	4.9	3.7 F	(3.2) F	2.9 F
11	2.8 F	2.6 F	2.3 F	2.0 F	1.6 F	2.4 F	3.6 F K	<3.6 G K	4.2 K	4.2 K	5.1 K	5.2 K	4.9 K	4.7 K	5.1 K	5.0 K	4.8 K	5.3 K	5.8 K	6.5 K	5.3 F K	4.3 F K	3.9 K	3.6 K
12	3.7 K	3.6 K	3.4 F K	(2.2) F K	(1.6) F K	2.3 F	4.0 H	4.5	5.0	5.8	5.8	6.4	6.4	7.2	6.8	6.6	6.3	7.8	(7.4)	(6.8)	5.4	(5.0)	(4.8)	4.0 F
13	3.4 F	3.5 F	3.1 F	2.1 F	1.7 F	2.7 F	4.1	4.5	4.6	5.0	5.6	5.8	5.9	5.8	5.6	5.7	5.7	5.5	5.7	5.5	4.3	4.0	3.6 F	3.5 F
14	3.0 F	2.7 F	2.2 F	1.7 F	(1.5) F	2.5 F	3.6	<4.0 G	4.5	4.5	5.1	5.4	(5.2)	5.6	5.8	5.8	6.2	5.8	5.7	5.2	4.6	4.0 F	3.7 F	3.4 F
15	3.3	2.8 F	2.6	2.3 F	2.2 F	2.9	4.0 K	<4.0 G K	4.2 K	4.3 K	4.6 K	4.4 K	4.8 K	4.6 K	4.6 K	4.7 K	4.7 K	4.8 K	4.5 K	4.2 K	3.4 K	2.6 F K	(2.6) F K	2.4 F K
16	2.0 F K	1.8 F K	1.5 F K	1.3 F K	[1.1]C K	2.9	4.3	4.6	(4.8)	5.0	5.5	5.7	5.8	6.0	(5.8)	6.0	5.9	5.6	5.6	5.4	4.7	4.2	3.7	3.2 F
17	2.8 F	2.7 F	2.6 F	2.3 F	1.9 F	3.2 F	4.6	5.0	5.5	(5.1) H	5.7	5.8	5.8	6.1	6.0	5.8	5.7	6.2	6.5	6.0	4.5	3.8 F	3.6	3.5
18	3.2 F	3.1	2.9 F	2.7 F	2.3	3.3	4.6	5.2	5.1	6.3	6.2	6.3	6.3	(6.2)	6.4	6.5	6.6	6.6	(6.9)	(6.5)	5.5	4.8	4.1	3.8
19	3.5	3.4	3.3	3.0	2.2	3.1	4.1	4.8	5.5	5.8	6.3	6.6	6.8	6.3	6.6	6.6	6.2	6.2	6.5	(5.9)	5.3	4.6	4.2	3.9
20	3.8	2.8	2.5	2.5	2.1	3.8	(5.2)	(6.2)	6.6	(5.7)	6.4	6.6	6.9	6.4	5.8	6.2	6.0	6.6	6.6	(6.8)	5.6	4.6	3.6	3.3 F
21	3.1 F	3.0	2.7	(2.3)	2.3	3.6	4.7	5.5	5.6	5.7	5.6	5.6	5.8	5.8	5.9	6.0	5.8	5.9	6.0	6.6	5.5	5.1 F	4.8 F	(4.2) F
22	3.9	3.5	(3.1) F	(2.9) F	(2.6) F	3.8	5.0	5.9	(6.0)	(6.6)	(7.0)	(7.0)	6.6	6.6	(6.6)	6.6	(6.6)	7.0	(7.2) H	6.6	5.8	4.8	4.5	4.3
23	4.0	3.9	3.5	3.1	2.5	3.5	4.3	4.7	4.7	5.4	5.8	(6.4)	6.4	6.4	6.6	7.0	6.2	5.9	5.7	5.9	5.5	4.9	4.4	4.2
24	3.8	3.6	3.2	3.0 F	2.6	3.9	4.9	(5.4)	6.5	5.8	(7.0)	6.8	7.2	(7.4)	6.8	6.8	(7.2)	6.6	7.0	6.2	5.6	5.0	4.7	4.6
25	4.0	(3.5)	3.2	2.3	2.0	3.3	4.5	4.9	5.2	5.5	6.2	6.6	7.0	6.7	6.5	6.5	6.5	6.6	6.4	6.0	6.0	4.9	4.1	3.9
26	3.6	3.3	3.2	3.1	3.0	3.8	4.9	5.7	6.4	6.2	6.2	6.4	6.6	6.6	6.7	6.6	6.4	6.6	6.6	5.8	6.0	5.1	4.9	4.8
27	4.5	4.2	3.8	3.4	2.9 F	3.9	5.1	5.3	6.0	6.4	6.5	6.6	6.4	(6.6)	6.6	6.6	[6.6]C	6.6	7.0	6.8	6.4	5.4	4.7	4.4
28	4.2	4.0	3.7	3.7	3.5	4.8	6.0	6.2	6.0	6.5	6.6	6.8	(7.0)	6.7	(8.2)	8.0	(7.4)	(7.6)	(7.0)	7.0	6.2	5.8	5.4	5.1
29	4.6	4.4	4.0	3.6	3.2	3.7	4.8	5.5	5.9	6.5	7.0	6.6	6.9	6.8	7.2	(7.4)	(7.6)	6.8	6.8	6.6	6.0	5.0	4.9	4.8
30	4.1	4.0	3.7	3.5	2.9	4.3	5.4	5.5	5.5	6.2	6.4	6.6	7.0	(7.1)	(8.8)	9.0	(8.6)	7.6	6.8	6.4	6.0	5.7	5.5	5.1
31																								
Sum																								
Median	3.6	3.2	2.8	2.3	2.2	3.2	4.6	5.0	5.5	5.7	6.0	6.4	6.4	6.4	6.5	6.6	6.4	6.6	6.6	6.1	5.4	4.6	4.1	3.9

TABLE 38

IONOSPHERE DATA—4

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $h'F1$ in km for April (Month) 1945

Records measured by: M R R, A. F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							K	[240]$^{E}_{K}$	[240]$^{E}_{K}$	[220]^{C}	(200)^{K}	240^{K}	[260]$^{E}_{K}$	220^{K}	200^{K}	230^{K}	[250]$^{E}_{K}$	[250]$^{E}_{K}$	K					
2										[230]^{C}	260	[220]^{A}	200	220	220	220	250	(240)						
3										[220]^{C}	240	220	220	220	220	240	240	240						
4									240	220	220	200^{H}	220	220	220	240	220	220						
5								240	240	220	220	240	220	240	240	220	260	240						
6								[240]^{C}	[220]^{C}	220	210	220	240	240	240	240	220	240						
7									220	220	220	220	220	210	240	240	240	240	K					
8							K	220^{K}	220^{K}	220^{K}	240^{K}	220^{K}	220^{K}	220^{K}	220^{K}	240^{K}	220^{K}	240^{K}	250					
9								220	220^{H}	220	200	210	220	(220)	240	240	240	220						
10								220	220	220	220	200	220^{H}	200	240	220	220	220						
11							K	220^{K}	220^{K}	200^{K}	230^{K}	200^{K}	(240)^{K}	240^{K}	240^{K}	240^{K}	220^{K}	240$^{H}_{K}$	240^{K}					
12									260	220	240	230	220	[240]^{C}	220	220	220	240						
13								230	(220)	220	220	200	240	260	220	220	240	240	240					
14									220	220	200	240	240	220	220	220	240	240						
15							K	240^{K}	240^{K}	220^{K}	210^{K}	220^{K}	(280)^{K}	(240)^{K}	220^{K}	220^{K}	230^{K}	240^{K}	250^{K}					
16									220	220	220	210	220	240	[220]^{C}	220	230	220	230					
17							230	220	220	220	200	200^{H}	200	(220)	220	220	230	220	240					
18								230	220	220	210	240	220	210	(230)	240	220	240	240					
19									220	220	220	290	220	220	240	220	240	260	240					
20								220	220	200	230	220	220	220	220	220	220	220	240					
21							240	240	220	220	200	200^{H}	200	220	220	240	220	220	240					
22								240	220	220	200	200^{H}	200	[220]^{C}	220	220	220	220	220					
23								220	230	200	220	220	220	220	220	240	220	240	240					
24								220	220	220	200	220	220	220	220	220	240	(220)	240					
25								240	220	240	200	220	240	240	220	[220]^{B}	220	240	240					
26								240	220	220	220	200	200	220	240	240	240	240	240					
27								240	240	220	220	220	220	220	200	220	[220]^{B}	240	240					
28								[230]^{C}	[220]^{C}	220	200	200	240	220	220	220	240	[240]^{B}	240					
29								240	220	220	220	220	210	240	220	220	240	240	240					
30								240	220	220	220	200	220	260	200	240	220	230	220^{H}					
31																								
Sum																								
Median								240	220	220	220	220	220	220	220	220	230	240	240					
Mean[2]																								

TABLE 39
IONOSPHERE DATA — 5

RESTRICTED

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Hourly values of $f^{\circ}F_1$ in {Mc} for April (Month) 1945

Records measured by: M.R.R. A.F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								[3.3]C K	[3.6]C K	[3.8]C K	3.9 K	4.0 K	4.2 K	(4.2) K	4.2 K	4.0 K	[3.9]C K	C K	K					
2										[4.2]C	(4.4)	[4.5]A	4.4	4.4	4.5	4.4	4.1							
3										C	4.6	(4.5)	(4.6)	4.7	4.6	4.4	4.0							
4									(3.9)	4.2	4.4	4.5H	4.7	4.5	4.5	4.3	4.0							
5										4.2	(4.4)	(4.5)	4.6	4.6	4.5	4.3	4.0	3.4						
6									C	[4.1]	(4.4)	(4.5)	4.6	4.6	4.5	4.3	(4.0)							
7										4.1	(4.4)	4.5	4.6	4.6	4.6	4.3	4.1	(3.7)	K					
8								3.5 K	3.9 K	4.1 K	4.2 K	4.3 K	4.3 K	4.2 K	4.2 K	4.2 K	4.0 K	3.5 K						
9									4.0H	(4.1)	4.2	4.4	4.5	4.5	4.4	4.3	4.1	3.7						
10										4.2	4.4	4.6	4.7H	4.5	4.4	4.3	4.1	3.6						
11								3.6 K	4.1 K	4.0 K	4.0 K	4.1 K	4.2 K	4.2 K	4.1 K	4.1 K	3.9 K	3.6 K	3.1 K					
12									4.0	4.0	4.3	4.3	4.4	4.4	4.3	4.4	4.0	3.7						
13									(3.9)	4.3	4.2	4.3	4.4	4.5	4.3	4.2	4.1	3.6						
14									3.9	4.0	4.2	4.2	4.4	4.3	4.1	4.1	3.9	3.6						
15								3.4H K	3.9 K	4.1 K	4.1 K	4.2 K	4.2 K	4.2 K	4.2 K	4.1 K	3.9 K	3.5 K	K					
16									3.9	4.2	4.3	4.4	4.4	4.4	4.4	4.2	4.0							
17									(4.5)	4.3	4.3	4.5H	4.3	4.5	4.3	4.3	4.1	3.6						
18								(3.5)	(4.0)	4.3	4.4	4.5	4.4	4.4	4.4	4.3	4.0	(3.7)						
19									4.0	4.2	4.4	4.5	4.5	4.5	4.4	4.3	4.1	3.8	3.2					
20										4.4	4.6	4.6	(4.6)	(4.5)	4.4	4.3	4.1	[3.7]	3.2					
21								3.6	4.1	4.3	4.5	4.5H	4.6	4.5	4.4	4.3	4.1	3.8						
22								(3.7)	4.2	(4.3)	4.4	4.6H	4.6	4.6	4.5	4.4	4.2	3.8	3.2					
23								3.9	4.1	4.2	4.4	4.5	4.6	4.6	4.6	4.4	4.1	3.9						
24									C	4.5	4.5	4.6	4.5	4.6	4.5	4.4	4.2	3.8						
25								3.8	4.0	4.2	4.4	4.7	4.7	4.6	4.6	[4.4]B	(4.2)	3.8						
26								3.7	4.2	4.4	4.5	4.6	4.7	4.6	4.6	4.4	4.2	3.9						
27								(3.8)	4.3	4.5	(4.6)	4.7	4.7	4.6	4.7	4.5	[4.4]B	4.0						
28								[3.9]C	[4.3]C	4.5	4.6	4.8	4.7	4.7	4.7	4.5	4.3	[3.9]B						
29								(3.9)	4.2	4.4	4.7	4.9	4.8	4.8	4.7	4.5	4.3	4.1	(3.4)					
30								[4.0]	4.7	4.5	4.6	4.7	4.7	(4.7)	4.7	4.5	4.3	4.0	H					
31																								
Sum																								
Median								3.7	4.0	4.2	4.4	4.5	4.6	4.5	4.4	4.3	4.1	3.7	3.2					

TABLE 40

IONOSPHERE DATA—6

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $h'E$ in km for April (Month) 1945

Records measured by: M. R. R.
A. F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								[120]$^{C}_{K}$	[120]$^{C}_{K}$	[120]$^{C}_{K}$	120^{K}	120^{K}	120^{K}	120^{K}	110^{K}	120^{K}	[120]$^{C}_{K}$	[130]$^{C}_{K}$	[130]$^{C}_{K}$					
2								[120]^{C}	[120]^{C}	[110]^{C}	110	120	120	120	110	110	120	120	110					
3								[120]^{C}	120^{H}	[110]^{C}	110	120	110	110	110	110	110	120	120					
4								120	120	120	110	120	110	120	120	120	100	100	100					
5								120	120	120	120	120	120	110	120	120	120	120	140					
6							130^{H}	[120]^{C}	[110]^{C}	120	120	120	120	120	130	120	120	120	120					
7							140	120	120	120	120	120	120	120	120	110	120	120	120^{K}					
8							130^{K}	120^{K}	120^{K}	120^{K}	120^{K}	110^{K}	120^{K}	120^{K}	120^{K}	120^{K}	120^{K}	120^{K}	120					
9							140	120	120	120	120	120	120	120	120	120	120	120	140					
10							140^{H}	120	120	120	120	110	120	120	120	120	120	120	120					
11							^{K}	120^{K}	120^{K}	110^{K}	120^{K}	120^{K}	120^{K}	110^{K}	120^{K}	120^{K}	120^{K}	120^{K}	140^{K}					
12							120	120	120	120	120	110	120	110	120	120	120	120	120					
13							140	120	120	120	120	120	120	120	120	120	120	120	120					
14							120	120	110	120	120	120	120	120	120	120	120	120	120					
15							120^{K}	120^{K}	120$^{H}_{K}$	120^{K}	120^{K}	120^{K}	120^{K}	120^{K}	110^{K}	100^{K}	110^{K}	120^{K}	120^{K}					
16							120	120	120	120	120	120	120	110	[120]^{C}	120	120	110	120					
17							110	120	120	120	120	120	120	110	110	120	110	120	120					
18							120^{H}	120	120	120	120	120	120	120	120	120	120	120	120					
19								120	120	120	120	120	120	110	120	120	120	120	120					
20							120	120	120	120	120	120	110	100	110	110	110	120	140					
21							120	120	110	110	110	120	120	110	120	100	120	120	130					
22							120^{H}	120	110	110	110	100	110	100	100	110	110	110	120					
23							140	120	110	120	120	110	100	110	110	120	110	120	130					
24							120	120	120	120	120	120	120	120	110	120	120	120	120					
25							120	120	120	120	120	110	120	120	120	[120]^{B}	120	110	120^{H}					
26							120	120	110	120	120	120	120	120	110	120	120	120	120					
27							120^{H}	120	120	120	110	110	120	120	110	120	[120]^{B}	120	120					
28							140	[120]^{C}	[120]^{C}	120	120	120	110	110	120	110	120	[120]^{B}	120					
29							120	120	120	120	120	120	120	120	120	120	120	120	140					
30							120	120^{H}	120	110	120	120	120	120	120	120	120	120	120					
31																								
Sum																								
Median							120	120	120	120	120	120	120	120	120	120	120	120	120					

TABLE 41

IONOSPHERE DATA—7

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $f^{\circ}E$ in Mc for April (Month) 1945

Records measured by: M.R.R. A.F.

TIME: 75°W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							K	[2.1]$^{C}_{K}$	[2.3]$^{C}_{K}$	[2.8]$^{C}_{K}$	(3.0)^{K}	(3.1)^{K}	(3.2)^{K}	(3.2)^{K}	3.2^{K}	3.0^{K}	[2.7]$^{C}_{K}$	[2.3]$^{C}_{K}$	C^{K}					
2								[2.2]^{C}	[2.6]^{C}	C	B	A	A	B	(3.2)	(3.2)	3.0	2.4	A					
3								[2.3]^{C}	2.5^{H}	C	B	B	(3.3)	[3.4]^{B}	(3.4)	3.2	2.9	2.5	A					
4								[2.1]^{A}	(2.7)	A	B	B	(3.4)	[3.5]^{B}	3.4	(3.2)	(3.0)	[2.5]^{B}	(1.9)					
5								[2.3]^{B}	2.7	3.1	(3.3)	B	B	(3.4)	(3.3)	3.1	2.9	2.4	1.7					
6							1.7^{H}	[2.5]^{C}	[2.9]^{C}	3.1	(3.3)	(3.3)	3.3	(3.3)	(3.2)	(3.1)	(2.9)	2.4	(1.8)^{F}					
7							(1.6)	2.3	2.6	3.1	3.2	(3.3)	3.4	3.4	3.4	(3.2)	2.9	2.5	1.9^{K}					
8							1.7^{K}	2.3^{K}	2.7^{K}	3.0^{K}	3.2^{K}	A^{K}	A^{K}	A^{K}	(3.2)^{K}	3.2^{K}	2.8^{K}	2.3^{K}	1.8					
9							(1.7)	2.2	(2.7)	[2.9]^{A}	3.2	3.2	3.2	[3.2]^{A}	(3.3)	3.3	2.9	2.5	1.7					
10							1.4^{H}	2.3	2.9	[3.2]^{A}	3.2	3.4	3.4	[3.4]^{A}	3.3	3.1	2.8	(2.4)	(1.8)					
11							K	2.3^{K}	2.7^{K}	3.0^{K}	3.3^{K}	(3.3)^{K}	[3.3]$^{B}_{K}$	(3.3)^{K}	3.2^{K}	3.1^{K}	2.9^{K}	2.4^{K}	1.9^{K}					
12							A	A	[2.7]^{A}	2.9	3.2	3.2	(3.3)	[3.3]^{C}	3.3	3.1	2.8	2.5	1.8					
13							1.8	(2.4)	2.7	3.0	(3.2)	[3.2]^{A}	3.3	(3.3)	3.2	3.1	2.8	2.4	1.9					
14							A	2.3	2.7	3.0	3.2	3.2	3.3	3.3	3.2	3.0	2.8	2.4	(1.9)					
15							1.8^{K}	2.3^{K}	(2.6)$^{H}_{K}$	2.9^{K}	3.0^{K}	C^{K}	C^{K}	[3.3]$^{C}_{K}$	3.3^{K}	3.1^{K}	2.8^{K}	2.3^{K}	1.9^{K}					
16							(1.8)	[2.2]^{A}	2.7	3.0	3.2	3.3	3.4	3.4	3.4	3.2	2.9	2.4	A					
17							[1.8]^{A}	2.3	(2.8)	3.1	(3.3)	[3.3]^{A}	[3.4]^{B}	(3.3)	(3.3)	3.2	2.9	2.5	A					
18							1.7^{H}	2.3	2.7	3.1	3.3	3.3	[3.4]^{B}	(3.3)	(3.3)	3.2	3.0	2.6	(1.8)					
19								2.4	2.8	(3.2)	(3.3)	B	B	B	3.3	3.2	2.8	2.5	A					
20							A	2.5	2.9	3.1	3.3	[3.4]^{B}	B	B	(3.3)	3.2	3.0	2.5	[1.9]^{A}					
21							1.9	[2.3]^{A}	2.8	A	B	B	[3.3]^{B}	(3.3)	(3.3)	3.3	3.1	(2.6)	1.9					
22							1.7^{H}	2.5	(2.9)	3.2	A	A	(3.4)	A	A	(3.3)	[3.0]^{A}	(2.6)	1.9					
23							A	2.4	2.8	(3.2)	(3.4)	(3.4)	(3.5)	[3.4]^{A}	3.4	[3.4]^{A}	3.0	2.6	A					
24							1.9	2.5	(2.9)	3.3	B	B	[3.5]^{A}	(3.5)	[3.5]^{B}	(3.3)	3.2	2.7	2.0					
25							A	2.6	2.9	3.3	B	B	B	B	B	B	3.1	2.6	1.9^{H}					
26							2.0	[2.5]^{A}	[3.0]^{A}	A	A	(3.4)	B	B	B	B	(3.1)	2.6	2.0					
27							1.7^{H}	[2.6]^{A}	3.2	A	A	A	B	3.5	[3.5]^{B}	3.4	[3.1]^{B}	2.9	(2.0)					
28							[2.3]^{A}	[2.8]^{C}	[3.1]^{C}	3.2	3.4	A	[3.5]^{B}	[3.5]^{B}	(3.4)	3.3	3.3	[2.8]^{B}	2.1					
29							1.9	2.6	3.1	(3.3)	A	A	A	B	3.5	3.4	3.2	2.7	2.1					
30							2.0	2.7^{H}	3.1	3.3	(3.5)	3.5	[3.5]^{B}	(3.5)	[3.5]^{A}	[3.3]^{A}	3.2	2.8	2.1					
31																								
Rus																								
Median							1.8	2.3	2.8	3.1	3.2	3.3	3.4	3.4	3.3	3.2	2.9	2.5	1.9					

TABLE 42

IONOSPHERE DATA — 8

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E_s in {Mc / km} for April (Month) 1945 Records measured by: M.R.R. A.F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	C	C	1.1 140	1.7 140	2.3 120	2.2 120	3.6 120	5.1 120	4.7 130	C	C	C	C		4.5 120	3.4 120	3.2 110	2.7 150	3.0 120	C	C	C	C	C
2	2.7 140	4.4 120	4.1 120	3.4 120	3.5 120	2.9 120	(2.7) 120	2.5 120	3.0 120	3.5 110	4.9 110	5.8 110	4.4 110		3.6 110	3.6 140	4.3 120	3.2 120	2.4 110		2.4 120	2.3 110		
3	4.0 110	3.6 110	2.9 120	3.4 120	2.8 120	C	(3.1) 110	C	2.9 120	3.2 110	3.3 120				3.4 150	3.4 140	3.3 130	3.3 120	3.4 120			2.3 140	2.4 140	2.3 120
4		2.0 120	3.5 120	2.4 120	2.5 120		2.1 120	2.7 120	4.3 120	4.4 120									2.0 110	1.9 120				
5			2.9 110	2.4 120			1.9 140		2.9 140		3.4 120							2.2 150	1.9 160	C	C	C	C	C
6		1.0 120	4.5 120					C	C				3.4 140	3.4 140	3.4 140	3.2 140			2.2 140					
7						2.1 120	2.8 130	3.0 120	3.2 120	3.4 120	3.5 120	3.6 140			3.4 170	3.4 160	3.2 140	3.2 140		2.9 140				
8	2.2 160			1.9 160	2.4 140	3.4 120			3.2 140			4.0 110	3.4 120	3.4 120			3.1 120	3.1 130	2.3 130	2.0 140				
9							2.9 120	2.4 160	2.9 130	3.1 120		3.4 160	3.6 110	4.2 120	3.4 140	3.6 120	3.2 140	3.4 120	3.3 140	2.7 120	3.1 140			
10				1.0 140			3.4 120	2.4 160	3.1 120	3.1 120	3.3 120			3.4 120	3.4 140	3.2 140	3.1 120	(3.4) 120	4.0 120	3.1 120	2.4 120	3.1 120	3.8 120	3.2 120
11	2.4 120	2.4 120		1.1 120	2.9 120	3.0 120	2.9 120				4.1 140	3.4 120		3.4 120			2.8 160							
12					3.1 120	2.8 120	4.2 120	4.7 120	3.9 110					3.4 160	3.4 140	3.2 160					2.7 120			
13		2.8 140	2.6 140						3.1 120		3.4 140	3.3 140		3.4 180			2.9 140	3.0 120	2.0 160			2.7 120		
14				3.9 120		(3.5) 140	2.8 120					3.4 140												
15									2.9 140	3.0 140	3.1 120						3.0 140	(2.9) 140	3.3 120	2.5 120				
16			3.6 120	3.1 120	3.0 120	2.9 120	2.3 120	3.0 120	3.0 120	3.5 120	3.8 120					3.2 140	3.1 140	(3.0) 140	2.1 120					
17							3.1 110	2.9 120	3.2 120	3.2 120		3.4 120			3.4 160		4.1 120	2.9 120	3.4 110	2.9 120	2.6 120	4.3 120	2.5 120	
18	2.4 120	2.1 120	(2.3) 120		2.4 140	2.9 120	3.0 120	4.1 120	3.9 110	3.4 120	3.4 120	4.1 110			3.4 140		3.0 130	2.7 140	3.0 120	4.2 120	5.8 120	2.9 120	2.2 120	
19	3.1 120		3.0 120	2.8 120	2.9 120	3.2 120	(5.0) 120	3.1 120	(2.9) 120	3.3 130					(3.5) 120	3.2 160	(4.0) 130	3.6 120	3.4 120					
20			1.0 120	1.0 120			3.1 120	3.1 120	3.1 120	3.2 120	(3.8) 120				3.9 140	3.4 110	2.9 160	(3.6) 120	3.4 130	2.5 140				
21							3.1 120	3.4 120	3.0 120	3.2 110							2.8 180	2.4 160	3.4 120	2.8 120	2.6 120	2.3 120		
22							2.3 120	3.1 110	3.1 120		4.0 110	4.1 100		3.8 100	3.9 100	3.8 140	4.2 120	3.2 110	2.3 120					
23							1.8 140		3.1 120	3.4 140			3.4 100	3.4 110	3.4 120	3.4 110	3.1 120	3.0 140	3.3 120		3.1 120			
24				2.8 100			2.0 140	3.1 120					4.0 120	4.2 130				3.1 120	2.5 120	1.8 120	1.9 120			
25							2.3 120	2.9 130	3.0 140							B	3.0 180	2.9 110	2.3 120	2.4 120			3.5 120	3.0 120
26	2.9 120	2.9 120	2.9 120	2.5 120	3.0 120		3.0 120	3.4 120	3.3 120	3.4 110	3.4 120						3.1 160	2.9 120	3.2 120	3.0 120	2.3 120	2.1 120	3.4 120	2.3 120
27	2.4 110	3.1 110	2.7 110	3.0 120	2.3 120		3.3 120	3.1 120	3.4 120	3.4 120	5.2 110	4.1 110						2.5 160	2.2 140					
28			1.0 120				3.2 120	3.2 140	3.5 120	3.6 120		3.7 120	4.0 120		3.4 120				2.4 140		2.8 120	2.7 120	3.0 120	
29		1.0 120	3.4 120	3.0 120	2.9 120		3.3 120	4.0 120	4.1 120	3.9 120	4.0 120	4.0 120	3.6 120					2.9 160	2.3 140	2.1 120	3.0 120	3.2 120	3.9 120	2.8 120
30	2.4 120		3.1 110	2.2 120	2.3 140	3.1 120	3.1 140	3.1 120		3.4 130		3.6 120	3.9 120		4.3 120	3.4 120			2.1 140	2.9 140	3.0 120	C	2.4 110	
31																								
Sum																								
Median	*	*	1.0	1.0	*	*	2.9	3.0	3.1	3.2	3.1	*	*	*	3.4	*	3.0	2.9	2.4	1.8	*	*	*	*

* Less than median f°_{E}, or less than lower frequency limit of apparatus.

TABLE 43
IONOSPHERE DATA—9

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2—M1500 for April (Month) 1945

Records measured by: M.R.R. A.F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.0	C K	C K	C K	C K	C K	C K	C K	C K	C K	G K	G K	G K	(1.5) K	(1.6) K	1.6 K	C K	C K	C K	C K	C K	C K	C K	C K
2	C K	C K	C K	C K	C K	C K	C	C	C	C	2.0	A	1.9	2.0	(2.0)	2.1	2.2	2.1	2.2	2.1	2.0	2.0	1.9	1.8
3	C	C	C	C	C	C	C	C	2.3	C	2.1	2.2	(2.1)	2.2	2.1	2.1	2.2	2.3	2.2	2.1	2.1	1.9	1.9	1.9
4	1.9	1.9	(2.0) F	(2.0) F	2.1 F	(2.2) F	2.3	2.3	2.4	(2.0)	2.0	2.0	1.9	2.2	(2.2)	2.1	C	2.1	2.1	2.1	2.0	2.0	1.9	2.0
5	2.0	2.0	1.9	1.9	1.9	2.0	2.3	B	2.2	2.0	2.1	2.2	2.1	1.9	1.9	(2.0)	(2.0)	(2.0)	2.1	C	C	C	C	C
6	(1.9) F	C	C	(2.0) F	(1.9) F	(1.9) F	2.4	C	C	2.1	(2.0)	2.2	2.3	(2.1)	2.1	2.1	2.2	2.2	2.1	2.1	2.1	(2.0)	1.8	1.8
7	1.8	(1.9) F	2.1 F	2.0 F	(2.0) F	(2.1) F	2.1	2.2	2.3	2.2	2.1	2.0	2.2	2.1	2.2	2.2	2.1	(2.3)	(2.1) K	(2.3) K	2.1 K	2.2 K	1.9 K	1.9 K
8	1.9 K	2.0 F K	(1.8) F K	(1.9) F K	(1.9) F K	(1.8) F K	2.1 K	(1.8) K	2.0 K	1.9 K	G K	1.6 K	1.8 K	1.8 K	1.8 K	1.9 K	2.1 K	2.0 K	2.1	2.1	(2.0) F	(2.0) F	(1.9) F	(1.8) F
9	(1.8) F	1.8 F	(1.9) F	(1.9) F	(1.9) F	(2.1) F	(2.4)	2.2	2.1	2.3	3.3	2.2	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.3	(2.0)	(2.0) F	(1.9) F	(1.9) F
10	(1.9) F	(1.9) F	1.9 F	2.0 F	(2.0) F	(2.0) F	2.3	2.3	2.3	2.2	2.1	2.0	2.0	2.2	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.0	(2.0)	(1.9) F
11	(1.8) F	1.9 F	(1.8) F	1.9 F	(2.0) F	(2.0) F	2.2 K	(1.9) K	G K	1.7 K	1.5 K	1.7 K	1.8 K	1.8 K	1.6 K	1.9 K	1.9 K	1.9 K	1.9 K	2.0 K	2.1 K	(2.0) F K	1.9 K	1.9 K
12	1.8 K	1.8 K	1.8 K	(2.2) F K	(2.0) F K	(2.0) F	2.0	2.1	2.0	2.0	1.9	2.2	2.0	2.1	2.1	2.0	2.1	2.0	2.1	(2.1)	2.0	2.1	(2.0)	(1.8) F
13	(2.0) F	(1.9) F	(1.9) F	(2.0) F	(2.0) F	(2.0) F	2.1	2.0	2.2	1.9	1.9	2.0	2.0	2.2	2.1	2.0	2.0	2.1	2.0	2.1	(2.0)	1.8	1.8	(1.9) F
14	(1.8) F	(2.0) F	1.8 F	1.9 F	(1.9) F	(1.9) F	2.1	(2.2)	1.6	1.9	2.0	1.9	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.0	1.9	1.9	2.0 F
15	1.9 F	2.0	1.8 F	1.9	(2.0)	(2.1) F	2.1 H K	2.3 K	1.9 K	1.5 K	1.8 K	(1.7) K	G K	1.7 K	1.9 K	1.8 K	2.0 K	2.0 K	2.1 K	2.1 K	2.0 K	2.0 K	(1.8) F K	1.8 F K
16	(1.9) F K	(1.9) F K	(1.9) F K	(2.1) F K	(2.2) F K	2.0 F	2.3	2.4	2.1	2.1	2.1	2.0	2.1	2.0	C	2.0	2.1	2.1	2.2	2.2	2.1	2.0	2.1	2.0 F
17	1.9 F	2.0 F	(1.9) F	(2.0) F	(2.1) F	(2.2) F	2.4	(2.3)	2.1	2.0	2.2	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	(2.1)	(2.0) F	1.9
18	1.9	2.0	1.9 F	2.0 F	2.0	2.0	2.2	2.3	2.3	2.0	(2.3)	2.1	2.1	2.1	2.0	2.1	2.2	2.1	(2.3)	2.2	A	1.9	2.0	1.8
19	1.9	1.9	1.9	2.0	2.1	2.0	2.3	2.0	2.1	2.1	(2.0)	1.9	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.0	2.0	1.8	1.8
20	1.9	2.0	(1.8)	1.9	2.0	1.8	2.5	(2.2)	2.2	2.2	2.1	2.0	(2.2)	(2.2)	2.3	2.0	2.1	2.0	2.1	(2.1)	(2.2)	2.1	2.0	1.9
21	1.9 F	1.8	2.0	1.9	1.9	1.9	2.3	2.2	2.1	2.3	2.1	2.2	2.0	2.1	2.1	2.1	2.0	2.2	2.2	2.1	2.0	1.9	(2.1) F	(2.0) F
22	(2.0) F	(2.1)	(2.1) F	(2.2) F	2.0 F	2.3	2.2	2.3	2.2	2.2	(2.3)	(2.2)	2.0	C	2.2	2.1	2.1	2.3	2.4	(2.4)	2.2	2.0	2.0	1.8
23	1.9	1.9	2.0	2.0	2.1	2.1	2.1	1.9	2.2	2.0	2.2	2.2	2.0	2.2	(2.0)	2.0	2.2	2.2	2.2	2.1	2.0	1.9	2.0	1.8
24	1.9	2.0	1.8	2.0	2.2	2.1	2.3	2.4	(2.1)	2.1	2.1	2.2	(2.2)	2.2	2.2	2.1	2.2	2.3	2.3	(2.3)	2.1	1.9	2.0	1.9
25	2.0	J	J	(2.3)	B	1.9	2.1	2.0	2.1	2.0	(2.1)	2.0	2.0	2.3	2.1	B	2.2	2.2	2.1	2.2	2.0	2.2	2.0	2.0
26	2.0	2.0	1.8	1.9	1.9	2.1	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.2	2.2	2.1	2.2	2.1	2.2	2.2	2.2	2.0	2.0	1.9
27	1.9	2.0	2.0	2.1	2.0	2.0	2.2	2.2	2.2	2.1	2.1	2.2	2.3	2.2	2.1	2.1	B	(2.4)	(2.4)	2.5	2.3	2.0	1.9	1.9
28	1.9	1.8	1.9	2.0	2.1	2.1	2.2	C	C	2.2	1.8	2.0	2.3	2.2	2.2	(1.9)	2.1	2.0	2.2	(2.1)	2.0	2.0	1.9	1.9
29	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.2	(2.1)	(1.9)	2.2	2.0	2.2	(2.2)	2.2	2.0	2.0	1.8	1.8
30	1.9	1.9	2.0	1.9	1.8	2.1	2.2	2.0	1.9	1.9	2.1	2.2	2.2	(2.2)	2.0	1.9	2.0	(2.2)	2.1	2.1	2.0	C	1.8	1.8
31																								
Sum																								
Median	1.9	1.9	1.9	2.0	2.0	2.0	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	1.9	1.9

TABLE 44
IONOSPHERE DATA—10

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-M3000 for April (Month) 1945

Records measured by: M.R.R. A.F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.0	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	G^{K}	G^{K}	G^{K}	(2.2)^{K}	(2.5)^{K}	2.4^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}
2	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C	C	C	C	3.0	A	2.9	2.9	(3.0)	3.1	3.1	3.1	3.2	3.1	2.9	2.9	2.8	2.8
3	C	C	C	C	C	C	C	C	3.3	C	3.1	3.2	(3.1)	3.3	3.2	3.2	3.2	3.3	3.2	3.1	3.1	2.9	2.8	2.9
4	2.8	2.9	(2.9)^{F}	(2.9)^{F}	3.1^{F}	(3.2)^{F}	3.3	3.3	3.4	(3.0)	3.0	3.1	2.9	3.2	(3.2)	3.1	C	3.1	3.2	3.0	2.9	2.9	2.8	2.9
5	2.9	3.0	2.9	2.9	2.8	2.9	3.3	B	3.2	3.0	3.1	3.2	3.1	2.8	2.8	(3.0)	(3.0)	(3.0)	(3.1)	C	C	C	C	C
6	(2.8)^{F}	C	C	(3.0)^{F}	(2.8)^{F}	(2.8)^{F}	3.4	C	C	3.0	(3.0)	3.2	3.4	(3.1)	3.2	3.1	3.2	3.3	3.1	3.1	3.1	(3.0)	2.8	2.7
7	2.7	(2.8)^{F}	3.1^{F}	3.0^{F}	(3.0)^{F}	(3.1)^{F}	3.0	3.3	3.2	3.2	3.1	3.0	3.2	3.1	3.2	3.2	3.1	(3.4)	(3.1)^{K}	(3.3)^{K}	3.1^{K}	3.2^{K}	2.8^{K}	2.8^{K}
8	2.8^{K}	2.9^{F_K}	(2.7)^{F_K}	(2.9)^{F_K}	(2.8)^{F_K}	(2.7)^{F}	3.1^{K}	(2.8)^{K}	2.9^{K}	2.9^{K}	G^{K}	2.5^{K}	2.7^{K}	2.8^{K}	2.8^{K}	2.9^{K}	3.1^{K}	3.0^{K}	3.1	3.0	(3.0)^{F}	(2.9)^{F}	(2.9)^{F}	(2.8)^{F}
9	(2.7)^{F}	2.8^{F}	(2.8)^{F}	(2.8)^{F}	(2.8)^{F}	(3.1)^{F}	(3.4)	3.2	3.2	3.3	3.3	3.2	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.3	(3.0)	(3.0)^{F}	(2.9)^{F}	(2.8)^{F}
10	(2.9)^{F}	(2.8)^{F}	2.9^{F}	2.9^{F}	(3.0)^{F}	(2.9)^{F}	3.3	3.3	3.3	3.2	3.1	3.0	3.0	3.2	3.1	3.2	3.3	3.2	3.3	3.2	3.2	3.0	(2.9)	(2.9)^{F}
11	(2.8)^{F}	2.8^{F}	(2.8)^{F}	2.9^{F}	(3.0)^{F}	(2.9)^{F}	3.2^{K}	(2.9)^{K}	G^{K}	2.6^{K}	2.3^{K}	2.6^{K}	2.8^{K}	2.7^{K}	2.5^{K}	2.9^{K}	2.8^{K}	2.8^{K}	2.8^{K}	2.9^{K}	3.1^{K}	(3.0)^{F_K}	2.9^{K}	2.8^{K}
12	2.7^{K}	2.8^{K}	2.7^{K}	(3.2)^{F_K}	(2.7)^{F_K}	(2.9)^{F}	2.9	3.1	3.0	3.0	2.9	3.2	3.0	3.1	3.1	2.9	3.0	3.1	3.0	(3.1)	3.0	3.1	(3.0)	(2.8)^{F}
13	(3.0)^{F}	(2.9)^{F}	(2.9)^{F}	(3.0)^{F}	(3.0)^{F}	(3.0)^{F}	3.1	3.0	3.1	2.9	2.8	3.0	3.0	3.2	3.1	3.0	3.0	3.1	2.9	3.0	(2.9)	2.7	2.7	(2.9)^{F}
14	(2.8)^{F}	(3.0)^{F}	2.7^{F}	2.8^{F}	(2.8)^{F}	(2.9)^{F}	3.1	(3.2)	2.5	2.8	2.9	2.8	3.0	3.1	3.1	2.9	3.0	3.1	3.1	3.1	3.0	2.9	2.8	3.0^{F}
15	2.8^{F}	3.0	2.7^{F}	2.9	(3.0)	(3.1)^{F}	3.1$^{H}_{K}$	3.3^{K}	2.9^{K}	2.3^{K}	2.7^{K}	(2.6)^{K}	G^{K}	2.6^{K}	2.8^{K}	2.8^{K}	2.9^{K}	2.9^{K}	3.1^{K}	3.1^{K}	2.9^{K}	3.0^{K}	(2.8)^{F_K}	2.8^{F_K}
16	(2.9)^{F_K}	(2.9)^{F_K}	2.9^{F_K}	(3.1)^{F_K}	(3.2)^{F_K}	2.9^{F}	3.2	3.4	3.1	3.1	3.1	3.0	3.0	3.0	C	3.0	3.1	3.2	3.2	3.2	3.0	2.9	3.0	3.0^{F}
17	2.8^{F}	3.0^{F}	(2.8)^{F}	(2.9)^{F}	(3.1)^{F}	(3.2)^{F}	3.3	(3.3)	3.1	2.9	3.2	2.9	3.0	3.0	3.1	3.1	3.1	3.1	3.2	3.3	3.2	(3.1)	(3.1)^{F}	2.9
18	2.9	2.9	2.9^{F}	3.0^{F}	3.0	3.0	3.3	3.4	3.2	3.0	(3.3)	3.1	3.1	3.2	3.0	3.2	3.2	3.2	(3.2)	3.2	A	2.9	2.9	2.7
19	2.8	2.9	2.8	2.9	3.1	3.0	3.3	2.9	3.1	3.1	(3.0)	2.8	3.1	3.2	3.1	3.1	3.0	3.0	3.0	3.2	2.9	2.9	2.8	2.7
20	2.8	2.9	(2.7)	2.8	2.9	2.8	3.4	(3.3)	3.2	3.3	3.1	2.9	(3.2)	(3.2)	3.3	3.0	3.1	3.0	3.1	(3.0)	(3.1)	3.1	3.0	2.8
21	2.9^{F}	2.7	2.9	2.8	2.9	2.8	3.2	3.2	3.1	3.3	3.2	3.2	3.0	3.1	3.1	3.1	3.0	3.2	3.2	3.1	3.0	2.9	(3.1)^{F}	(3.0)^{F}
22	(2.9)^{F}	(3.1)	(3.1)^{F}	(3.2)^{F}	3.0^{F}	3.3	3.2	3.3	3.1	3.1	(3.3)	(3.2)	3.0	C	3.2	3.0	3.1	3.3	3.4	(3.4)	3.1	3.0	2.9	2.8
23	2.8	2.8	3.0	2.9	3.1	3.1	3.1	2.9	3.2	3.0	3.2	3.2	2.9	3.2	(3.0)	3.0	3.2	3.2	3.2	3.0	3.0	2.9	2.9	2.8
24	2.8	2.9	2.8	3.0	3.2	3.1	3.3	3.4	(3.0)	3.1	3.0	3.2	(3.2)	3.2	3.2	3.1	3.2	3.2	3.3	(3.3)	3.0	2.9	2.9	2.9
25	2.9	J	J	(3.3)	B	2.8	3.0	3.0	3.1	3.0	(3.1)	3.0	3.0	3.3	3.1	B	3.2	3.2	3.1	3.2	3.0	3.2	3.0	3.0
26	2.9	3.0	2.8	2.9	2.8	3.1	3.2	3.2	3.2	3.2	3.1	2.9	3.0	3.3	3.2	3.1	3.2	3.1	(3.2)	3.2	3.1	2.9	2.9	2.8
27	2.8	2.9	3.0	3.1	3.0	3.0	3.1	3.3	3.2	3.0	3.1	3.3	3.3	3.3	3.1	3.1	B	(3.4)	(3.4)	3.5	3.3	3.0	2.9	2.9
28	2.8	2.8	2.8	2.9	3.1	3.0	3.2	C	C	3.2	2.7	3.0	3.3	3.2	3.2	(2.8)	3.1	2.9	3.1	(3.1)	3.0	3.0	2.8	2.9
29	2.9	2.9	2.9	3.0	3.0	3.1	3.1	3.2	3.2	3.2	3.0	3.1	3.2	(3.1)	(2.8)	3.2	3.0	(3.2)	(3.2)	3.2	3.0	3.0	2.8	2.8
30	2.8	2.8	2.9	2.9	2.8	3.1	3.2	3.0	2.8	2.9	3.0	3.2	3.2	(3.2)	3.0	2.9	3.0	(3.1)	3.1	3.1	2.9	C	2.7	2.7
31																								
Sum																								
Median	2.8	2.9	2.9	2.9	3.0	3.0	3.2	3.2	3.1	3.0	3.1	3.0	3.0	3.1	3.1	3.0	3.1	3.1	3.1	3.1	3.0	3.0	2.9	2.8

TABLE 45

IONOSPHERE DATA — II

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-M3500 for April (Month) 1945

Records scaled by: M.R.R. A.F.

TIME: 75°W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.2	C K	C K	C K	C K	C K	C K	C K	C K	C K	G K	G K	G K	(2.4) K	(2.7) K	2.7 K	C K	C K	C K	C K	C K	C K	C K	C K
2	C K	C K	C K	C K	C K	C K	C	C	C	C	3.2	A	3.1	3.1	(3.2)	3.3	3.3	3.3	3.4	3.3	3.1	3.1	3.0	3.0
3	C	C	C	C	C	C	C	C	3.5	C	3.3	3.4	(3.3)	3.5	3.4	3.4	3.4	3.5	3.3	3.3	3.3	3.1	3.0	3.1
4	3.0	3.1	(3.1) F	(3.1) F	3.3 F	(3.4) F	3.5	3.5	3.6	(3.2)	3.2	3.3	3.1	3.4	(3.4)	3.3	C	3.3	3.3	3.2	3.1	3.1	3.0	3.2
5	3.1	3.2	3.1	3.1	3.0	3.1	3.5	B	3.4	3.2	3.3	3.4	3.3	3.0	3.1	(3.2)	(3.2)	(3.3)	3.3	C	C	C	C	C
6	(3.0) F	C	C	(3.2) F	(3.2) F	(3.0) F	3.6	C	C	3.2	(3.2)	3.4	3.6	(3.3)	3.4	3.3	3.4	3.5	3.3	3.3	3.3	(3.2)	3.0	2.9
7	2.9	(3.0) F	3.4 F	3.2 F	(3.3) F	(3.3) F	3.2	3.5	3.5	3.4	3.3	3.2	3.4	3.3	3.4	3.4	3.3	(3.6)	(3.3) K	(3.5) K	3.3 K	3.4 K	3.0 K	3.0 K
8	3.0 K	3.1 F K	(2.9) F K	(3.1) F K	(3.0) F K	(2.9) F K	3.3 K	(3.0) K	3.1 K	3.1 K	G K	2.7 K	2.9 K	3.0 K	3.0 K	3.1 K	3.3 K	3.3 K	3.3	3.2	(3.2) F	(3.1) F	(3.1) F	(3.0) F
9	(2.9) F	3.0 F	(3.0) F	(3.1) F	(3.0) F	(3.3) F	(3.6)	3.4	3.4	3.5	3.5	3.4	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.5	(3.2)	(3.2) F	(3.1) F	(3.0) F
10	(3.1) F	(3.1) F	3.1 F	3.1 F	(3.2) F	(3.1) F	3.5	3.5	3.5	3.4	3.3	3.2	3.2	3.4	3.3	3.4	3.5	3.4	3.5	3.4	3.4	3.2	(3.1)	(3.1) F
11	(3.0) F	3.0 F	(3.0) F	3.1 F	(3.2) F	(3.1) F	3.4 K	(3.1) K	G K	2.8 K	2.5 K	2.8 K	3.0 K	2.9 K	2.7 K	3.1 K	3.0 K	3.0 K	3.1 K	3.1 K	3.3 K	(3.2) F K	3.1 K	3.0 K
12	2.9 K	3.0 K	2.9 K	(3.4) F K	(3.1) F K	(3.1) F	3.2	3.3	3.2	3.2	3.1	3.4	3.2	3.3	3.3	3.1	3.2	3.2	3.2	(3.3)	3.2	3.3	(3.2)	(3.0) F
13	(3.2) F	(3.1) F	(3.1) F	(3.2) F	(3.2) F	(3.2) F	3.3	3.2	3.3	3.1	3.0	3.2	3.2	3.4	3.3	3.2	3.2	3.3	3.1	3.2	(3.1)	2.9	2.9	(3.1) F
14	(3.0) F	(3.2) F	2.9 F	3.0 F	(3.0) F	(3.1) F	3.3	(3.4)	2.7	3.0	3.1	3.0	3.2	3.3	3.3	3.1	3.2	3.3	3.3	3.3	3.2	3.1	3.0	3.2 F
15	3.0 F	3.2	2.9 F	3.1	(3.2)	(3.3) F	3.3 H K	3.5 K	3.1 K	2.5 K	2.9 K	(2.8) K	G K	2.8 K	3.0 K	3.0 K	3.1 K	3.1 K	3.3 K	3.3 K	3.1 K	3.2 K	(3.0) F K	3.0 F K
16	(3.1) F K	(3.0) F K	(3.1) F K	(3.3) F K	(3.4) F K	3.1 F	3.4	3.6	3.3	3.3	3.3	3.2	3.2	3.2	C	3.2	3.3	3.4	3.4	3.4	3.2	3.1	3.2	3.2 F
17	3.0 F	3.2 F	(3.0) F	(3.1) F	(3.3) F	(3.4) F	3.5	(3.5)	3.3	3.1	3.4	3.2	3.2	3.2	3.3	3.2	3.4	3.3	3.4	3.5	3.4	(3.3)	(3.3) F	3.1
18	3.1	3.1	3.1 F	3.2 F	3.2	3.2	3.4	3.5	3.4	3.2	(3.5)	3.3	3.3	3.4	3.2	3.4	3.4	3.4	(3.4)	3.4	A	3.1	3.1	2.9
19	3.0	3.1	3.0	3.1	3.3	3.2	3.4	3.1	3.3	3.3	(3.2)	3.0	3.3	3.4	3.3	3.3	3.2	3.2	3.2	3.4	3.1	3.1	3.0	2.9
20	3.0	3.1	(2.9)	3.0	3.1	3.0	3.6	(3.5)	3.4	3.5	3.3	3.1	(3.4)	(3.4)	3.5	3.2	3.3	3.2	3.3	(3.2)	(3.3)	3.3	3.2	3.0
21	3.1 F	2.9	3.1	3.0	3.1	3.0	3.4	3.4	3.3	3.5	3.5	3.4	3.2	3.3	3.3	3.3	3.2	3.4	3.4	3.3	3.2	3.1	(3.3) F	(3.2) F
22	(3.1) F	(3.3)	(3.3) F	(3.4) F	3.2 F	3.5	3.4	3.5	3.3	3.3	(3.5)	(3.4)	3.2	C	3.4	3.2	3.3	3.5	3.6	(3.6)	3.3	3.2	3.1	3.0
23	3.0	3.0	3.2	3.1	3.3	3.3	3.3	3.1	3.4	3.2	3.4	3.4	3.1	3.4	(3.2)	3.2	3.4	3.4	3.4	3.2	3.2	3.1	3.1	3.0
24	3.0	3.1	3.0	3.2	3.4	3.3	3.5	3.6	(3.2)	3.3	3.2	3.4	(3.4)	3.4	3.4	3.3	3.4	3.4	3.5	(3.5)	3.2	3.1	3.1	3.1
25	3.1	S	J	(3.5)	B	3.0	3.2	3.2	3.3	3.2	(3.3)	3.2	3.2	3.5	3.3	B	3.4	3.4	3.3	3.4	3.2	3.4	3.2	3.2
26	3.1	3.2	3.0	3.1	3.0	3.3	3.4	3.4	3.4	3.4	3.3	3.1	3.2	3.5	3.4	3.3	3.4	3.3	3.4	3.4	3.3	3.1	3.1	3.0
27	3.0	3.1	3.2	3.3	3.2	3.2	3.3	3.5	3.4	3.2	3.3	3.5	3.5	3.5	3.3	3.3	B	(3.6)	(3.6)	3.7	3.5	3.2	3.1	3.1
28	3.0	3.0	3.0	3.1	3.3	3.2	3.4	C	C	3.4	2.9	3.2	3.5	3.4	3.4	(3.0)	3.3	3.1	3.3	(3.3)	3.2	3.2	3.0	3.1
29	3.1	3.1	3.1	3.2	3.2	3.3	3.3	3.4	3.4	3.4	3.2	3.3	3.4	(3.3)	(3.0)	3.4	3.2	3.4	(3.4)	3.4	3.2	3.2	3.0	3.0
30	3.0	3.0	3.1	3.1	3.0	3.3	3.4	3.2	3.0	3.1	3.2	3.4	3.4	(3.4)	3.2	3.1	3.2	(3.3)	3.3	3.3	3.1	C	2.9	2.9
31																								
Sum																								
Median	3.0	3.1	3.1	3.1	3.2	3.2	3.4	3.4	3.3	3.2	3.3	3.2	3.2	3.3	3.3	3.2	3.3	3.3	3.3	3.3	3.2	3.2	3.1	3.0

TABLE 46
IONOSPHERE DATA—12

RESTRICTED

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Hourly values of FI-M3000 for April 1945
(Month)

Records measured by: M.R.R.
A.F.

TIME: 75°W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							K	C K	C K	C K	(3.6) K	(3.3) K	(3.5) K	(3.5) K	3.7 K	3.5 K	C K	C K	K					
2										C	(3.4)	A	3.7	3.7	3.5	3.3	3.5							
3										C	3.5	(3.6)	(3.8)	3.5	3.6	3.6	3.7							
4									(3.7)	3.8	3.7	3.5 H	3.5	3.7	3.6	3.5	3.9							
5										3.5	(3.5)	(3.6)	3.6	3.4	3.4	3.3	3.3	3.7						
6									C		(3.6)	(3.5)	3.5	3.4	3.4	3.5	(3.7)							
7										3.7	3.5	3.6	3.5	3.5	3.4	3.6	3.7	(3.7)	K					
8							K	3.5 K	3.5 K	3.7 K	3.7 K	3.7 K	3.7 K	3.7 K	3.6 K	3.4 K	3.5 K	3.6 K						
9									3.5 H	(3.7)	3.9	3.8	3.7	3.6	3.5	3.5	3.5	3.6						
10										3.7	3.7	(3.6)	3.4 H	3.7	3.5	3.4	3.5	3.7						
11							K	3.5 K	3.3K F	3.6 K	3.7 K	3.6 K	3.5 K	3.6 K	3.4 K	3.5 K	3.5 K	3.4 K H	3.5 K					
12									3.4	3.5	3.6	3.5	3.6	(3.6)	3.5	3.5	3.5	3.4						
13									(3.4)	3.4	3.8	3.7	3.7	3.4	3.6	3.4	3.4	3.5						
14									3.5	3.6	3.8	3.6	3.5	3.4	3.7	3.5	3.5	3.5						
15							K	3.5 H K	3.4 K	3.7 K	4.0 K	3.9 K	3.7 K	3.5 K	3.5 K	3.5 K	3.5 K	3.5 K	K					
16									3.5	3.6	3.6	3.9	3.6	3.5	C	3.6	3.5							
17									(3.4)	3.5	3.8	(3.7) H	3.9	3.6	3.7	3.5	3.5	3.5						
18								(3.8)	(3.7)	3.7	3.5	3.5	3.6	3.6	3.6	3.5	3.5	(3.6)						
19									3.5	3.6	3.6	3.7	3.7	3.6	3.7	3.5	3.5	3.5	3.6					
20										3.5	3.6	3.5	(3.6)	(3.8)	3.8	3.7	3.5		(3.7)					
21								3.6	3.5	3.6	3.8	3.6 H	3.6	3.7	3.5	3.6	3.5	3.5						
22								(3.7)	3.8	(3.8)	3.8	3.7 H	3.8	3.6	3.7	3.6	3.5	3.7	3.7					
23								3.3	3.5	3.7	3.7	3.6	3.6	3.7	3.5	3.5	3.6	3.5						
24									C	3.6	3.7	3.6	3.5	3.6	3.6	3.7	3.5	3.7						
25								3.6	3.5	3.6	(3.8)	3.5	3.4	3.6	3.7	B	(3.6)	3.7						
26								3.7	3.5	3.6	3.7	3.6	3.5	3.6	3.6	3.5	3.5	3.5						
27								(3.7)	3.6	3.7	(3.5)	3.7	3.6	3.7	3.7	3.5	B	3.6						
28								C	C	3.6	3.8	3.7	3.7	3.6	3.6	3.5	3.4	B						
29								(3.6)	3.7	3.6	3.5	3.5	3.6	3.4	3.4	3.4	3.5	3.5	(3.7)					
30									3.3	3.6	3.6	3.6	3.4	(3.5)	3.6	3.4	3.5	3.5	H					
31																								
Sum																								
Median								3.6	3.5	3.6	3.7	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.7					

TABLE 47
IONOSPHERE DATA—13

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E—M1500 for April (Month) 1945

Records measured by: M.R.R. A.F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							K	C K	C K	C K	(4.1) K	(3.8) K	(4.1) K	(4.0) K	4.0 K	3.8 K	C K	C K	C K					
2								C	C	C	B	A	A	B	(4.4)	(4.2)	3.8	A	A					
3								C	(3.8) H	C	B	B	(4.0)	B	(3.9)	(4.0)	4.1	4.0	A					
4								A	(4.2)	A	B	B	(3.9)	B	(4.1)	(4.0)	(4.1)	B	B					
5								B	4.1	4.1	A	B	B	(4.0)	(4.0)	(4.1)	3.8	4.0	4.0					
6							(4.0) H	C	C	(4.1)	(4.0)	(4.2)	4.1	(3.9)	(4.0)	4.0	(3.9)	4.0	(3.9) F					
7							4.0	(3.8)	(4.1)	(3.9)	4.0	(4.0)	4.1	4.0	3.8	4.0	4.0	3.9	3.9 K					
8							(4.0) K	(3.8) K	4.0 K	4.1 K	4.1 K	A K	A K	A K	(4.0) K	4.0 K	3.7 K	4.0 K	(3.8)					
9							(3.6)	3.9	(3.8)	A	4.0	4.0	4.0	A	3.9	4.0	4.0	3.9	3.9					
10							(3.9) H	3.6	3.8	A	4.1	4.0	4.0	A	4.1	4.1	4.1	A	(4.0)					
11							K	3.9 K	3.9 K	3.9 K	3.9 K	4.1 K	B K	(4.0) K	(4.0) K	3.9 K	4.0 K	4.0 K	3.7 K					
12							A	A	A	4.0	3.9	4.0	(4.0)	C	(4.0)	4.0	4.0	3.7	3.8					
13							3.7	(3.8)	3.9	3.8	(4.0)	A	4.0	(3.9)	4.0	3.8	4.0	3.9	4.0					
14							A	4.0	4.0	4.0	3.9	4.1	3.9	3.8	4.0	4.1	4.0	4.0	(3.9)					
15							3.9 K	3.9 K	(4.0) H K	3.9 K	4.1 K	C K	C K	C K	(3.8) K	4.0 K	4.0 K	4.0 K	4.0 K					
16							(4.1)	A	4.1	4.0	4.2	4.1	4.1	3.9	C	3.9	3.8	(4.0)	A					
17							A	4.0	(4.0)	4.0	(4.1)	A	B	4.1	(4.0)	4.0	3.9	3.9	A					
18							(3.9) H	(4.0)	(3.9)	3.8	4.1	4.0	B	(3.9)	(3.9)	3.9	3.7	3.9	(3.9)					
19								(4.1)	(3.8)	(4.0)	(4.0)	3	B	B	(4.1)	4.0	4.1	3.8	A					
20							A	4.0	(4.0)	4.0	4.0	B	B	B	(4.0)	3.9	3.9	4.0	A					
21							4.0	A	4.2	A	B	B	B	(4.1)	(3.9)	4.0	(3.9)	(4.0)	(4.0)					
22							4.1 H	A	(4.2)	(4.1)	A	A	(4.1)	A	A	(4.0)	A	(4.2)	4.2					
23							A	3.9	4.1	(4.1)	(4.0)	(4.0)	(4.2)	A	4.2	A	4.1	4.0	A					
24							4.0	4.0	(4.1)	4.0	B	B	A	(4.0)	B	(4.0)	4.1	4.1	3.9					
25							A	4.0	4.1	4.0	B	B	B	B	B	B	4.0	4.1	(4.1) H					
26							3.8	A	A	A	A	(4.1)	B	B	B	B	(4.0)	4.1	4.1					
27							4.1 H	A	3.9	A	A	A	B	(4.2)	B	4.1	B	4.0	A					
28							A	C	C	4.1	4.1	A	B	B	(4.0)	4.0	4.0	B	4.0					
29							(3.9)	4.1	4.1	(4.1)	A	A	B	B	3.8	3.8	4.0	4.0	(4.0)					
30							3.7	4.2 H	4.0	4.1	(3.9)	(4.1)	B	(4.0)	A	A	4.0	4.0	4.1					
31																								
Sum																								
Median							4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					

Table 48

Ionospheric Storminess, April, 1945

Day	Ionospheric Character* 00-12 GCT	12-24 GCT	Principal Storms Beginning GCT	End GCT	Magnetic Characters** 00-12 GCT	12-24 GCT
April						
1	4	6	0600	—/	4	4
2	4	1	——	1100	3	2
3	2	3			2	1
4	1	3			1	2
5	1	0			1	3
6	3	3			3	3
7	2	2	2300		3	2
8	4	4	——	2300	3	2
9	3	2			1	0
10	2	1			1	1
11	3	4	1100		3	4
12	4	1	——	1000	4	3
13	1	2			3	2
14	2	3			3	3
15	2	5	1100		3	2
16	5	2	——	1000	2	1
17	2	2			1	1
18	2	2			1	1
19	2	1			2	2
20	2	1			3	2
21	2	2			1	1
22	0	1			1	2
23	1	1			2	3
24	1	2			3	2
25	1	1			2	1
26	1	0			0	1
27	0	1			1	1
28	1	3			0	1
29	1	3			1	2
30	1	3			2	2

*Ionosphere character figure (I-figure) for ionospheric storminess at Washington, D.C., during 12-hour period, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

**Average for 12 hours of American magnetic K-figure, determined by a number of observatories, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

/Dashes indicate continuance of disturbance.

Table 49. Sudden Ionosphere Disturbances Observed at Washington, D.C.

Day	GCT Beginning	GCT End	Locations of transmitters	Relative intensity at minimum*	Other phenomena
April					
25	1303	1315	England	0.1	
25	1948	2015	Ohio, D.C., England, Mexico, Brazil, Chile	0.0	Terr.mag.pulse** 1949-1954
25	2224	2250	Ohio, D.C., New York, Mexico, Hawaii	0.05	Terr.mag.pulse** 2225-2228
26	1227	1245	Ohio, D.C., New York, England, Brazil	0.2	Terr.mag.pulse** 1225-1231
26	1909	1935	Ohio, D.C., England, Mexico, Brazil, Chile, Hawaii	0.05	Terr.mag.pulse** 1908-1919
27	1823	1845	Ohio, D.C., England, Mexico, Chile, Hawaii	0.05	Terr.mag.pulse** 1823-1833
27	2051	2140	Ohio, D.C., England, Mexico, Chile, Hawaii	0.0	Terr.mag.pulse** 2049-2054
28	1200	1240	Ohio, D.C., New York, England, Brazil	0.05	
28	2044	2110	Ohio, D.C., New York, Mexico, Brazil, Chile, Hawaii	0.1	Terr.mag.pulse** 2041-2100
28	2143	2225	Ohio, D.C., New York, Mexico, Chile, Hawaii	0.02	Terr.mag.pulse** 2142-2209
29	1427	1450	Ohio, D.C., England, Mexico	0.1	

*Ratio of received field intensity during SID to average field intensity before and after, for station W8XAL, 6080 kilocycles, 600 kilometers distant, for all SID except first, which is for station GLH, 13525 kilocycles, 5340 kilometers distant.

**As observed on Cheltenham magnetogram of the United States Coast and Geodetic Survey.

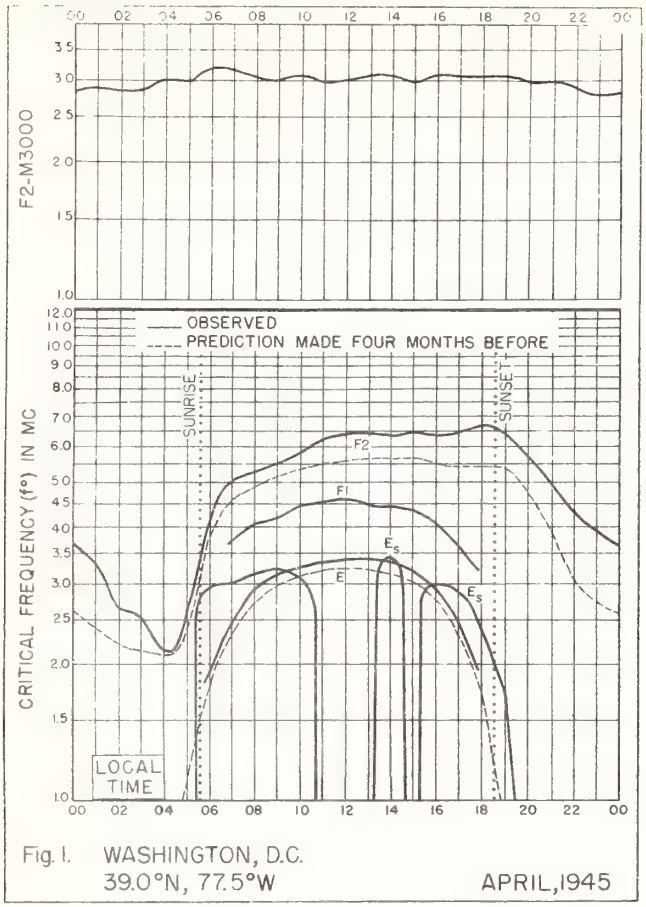

Fig. 1. WASHINGTON, D.C.
39.0°N, 77.5°W
APRIL, 1945

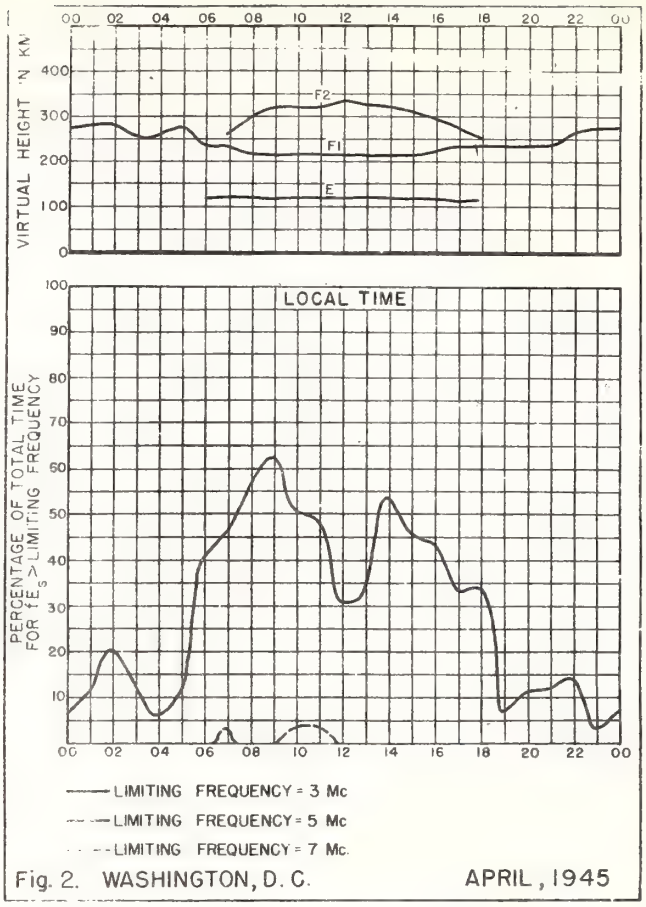

Fig. 2. WASHINGTON, D. C. APRIL, 1945

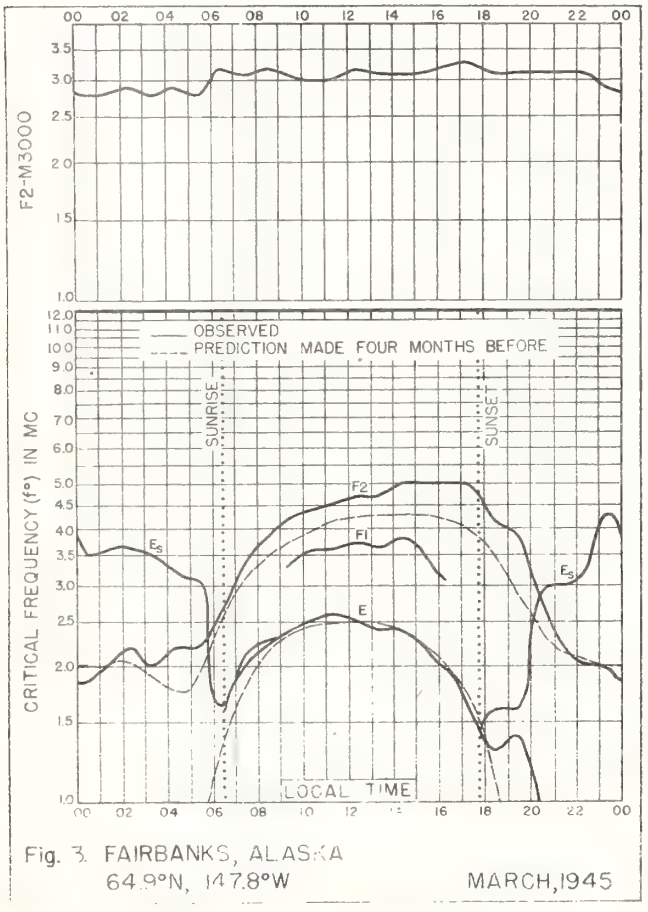

Fig. 3. FAIRBANKS, ALASKA
64.9°N, 147.8°W
MARCH, 1945

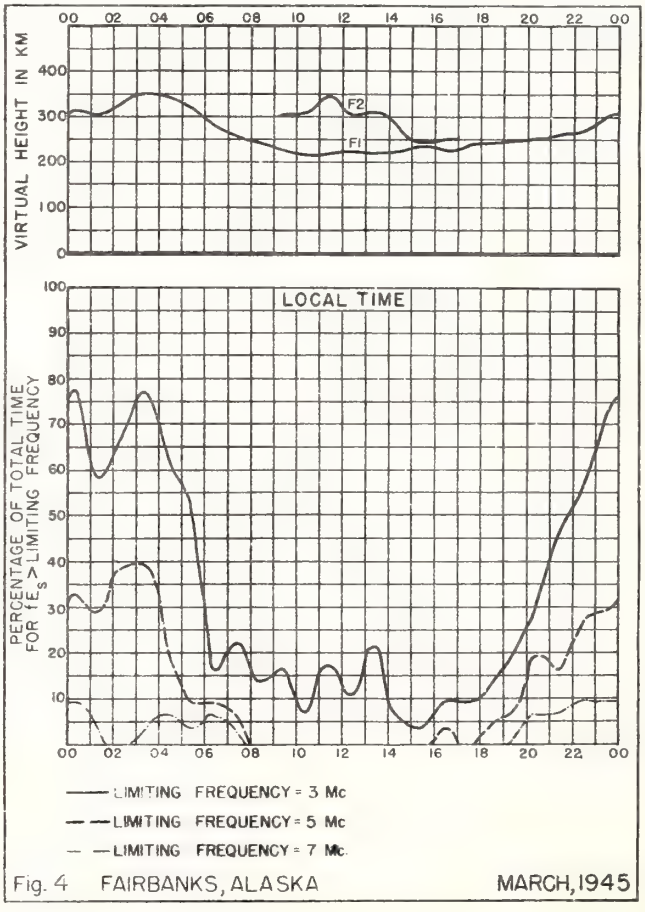

Fig. 4 FAIRBANKS, ALASKA MARCH, 1945

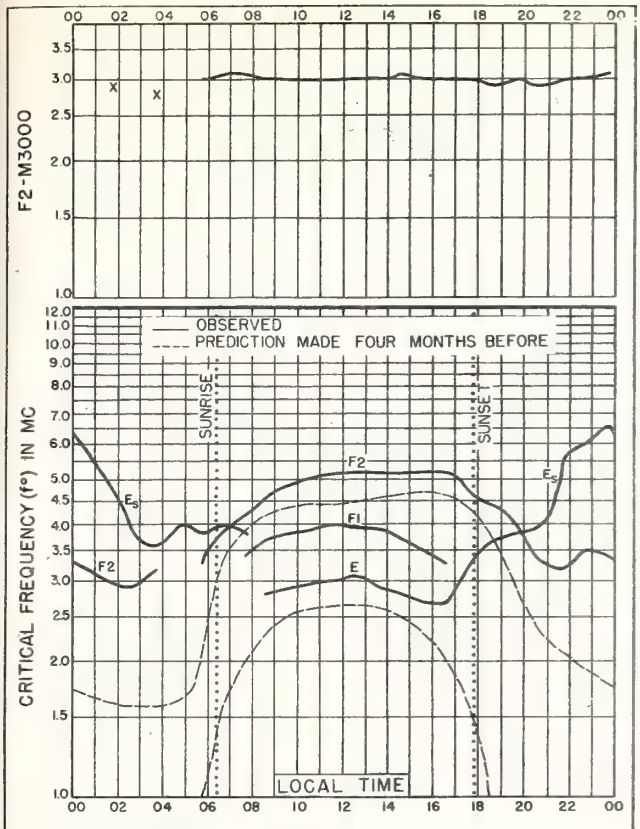

Fig. 5. CHURCHILL, CANADA
58.8°N, 94.2°W MARCH, 1945

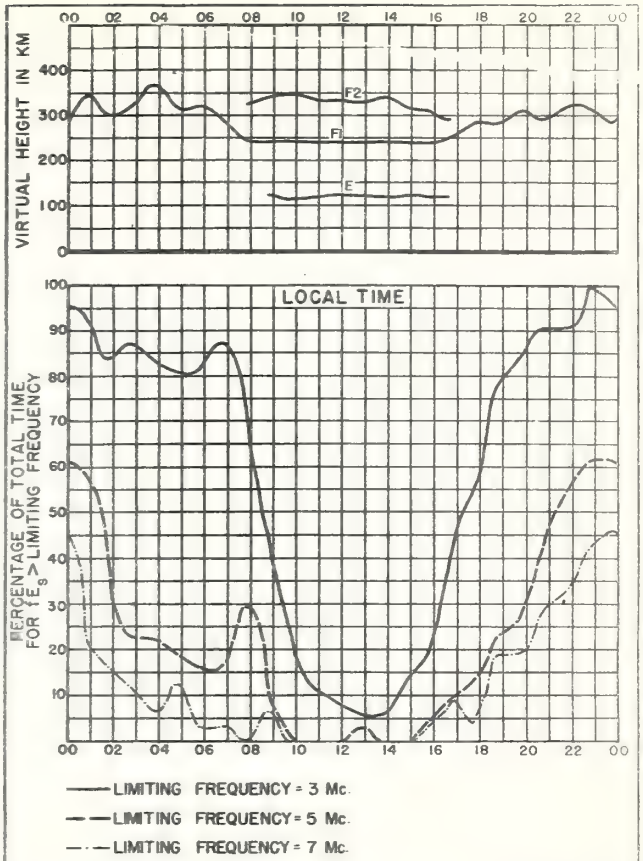

Fig. 6. CHURCHILL, CANADA MARCH, 1945

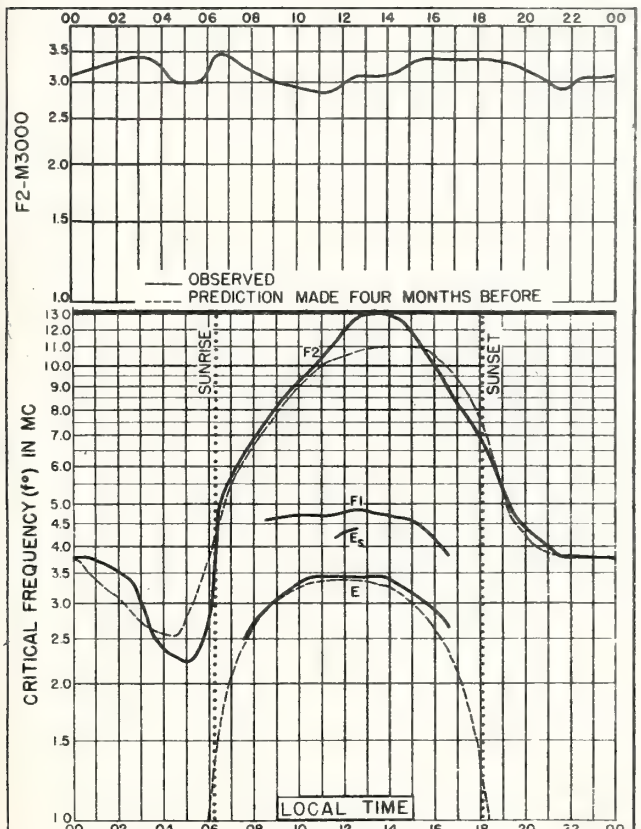

Fig. 7. MAUI, HAWAII
20.8°N, 156.5°W MARCH, 1945

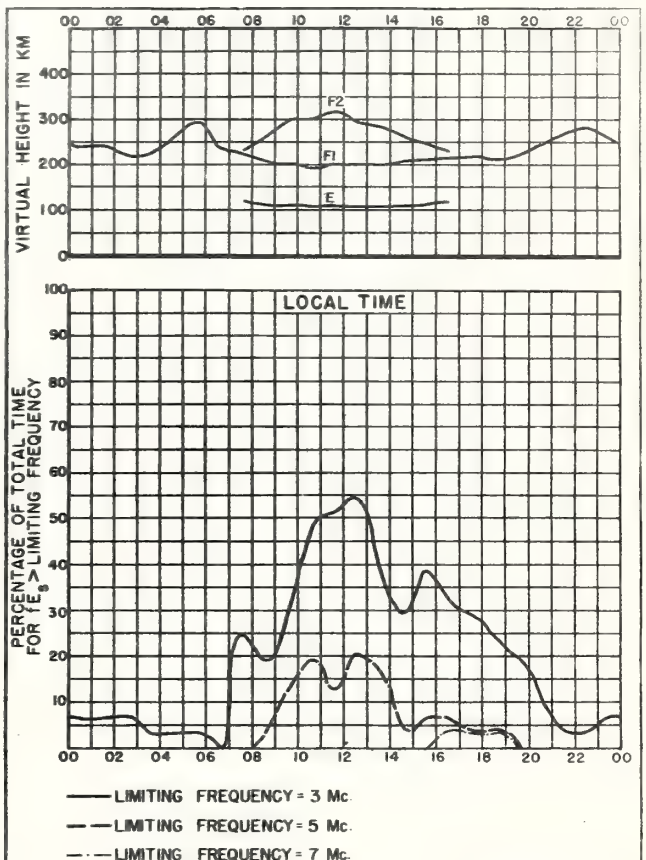

Fig. 8. MAUI, HAWAII MARCH, 1945

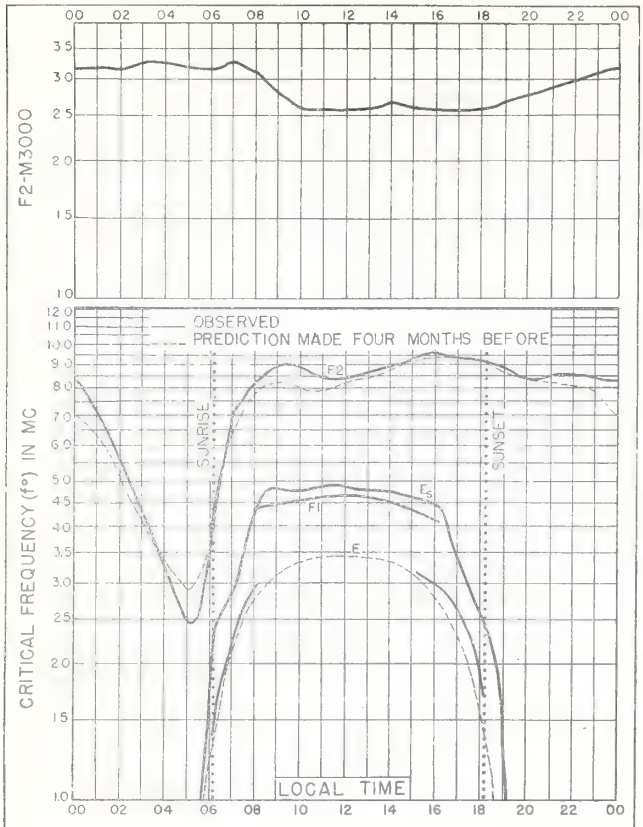

Fig. 9. HUANCAYO, PERU
12.0°S, 75.3°W
MARCH, 1945

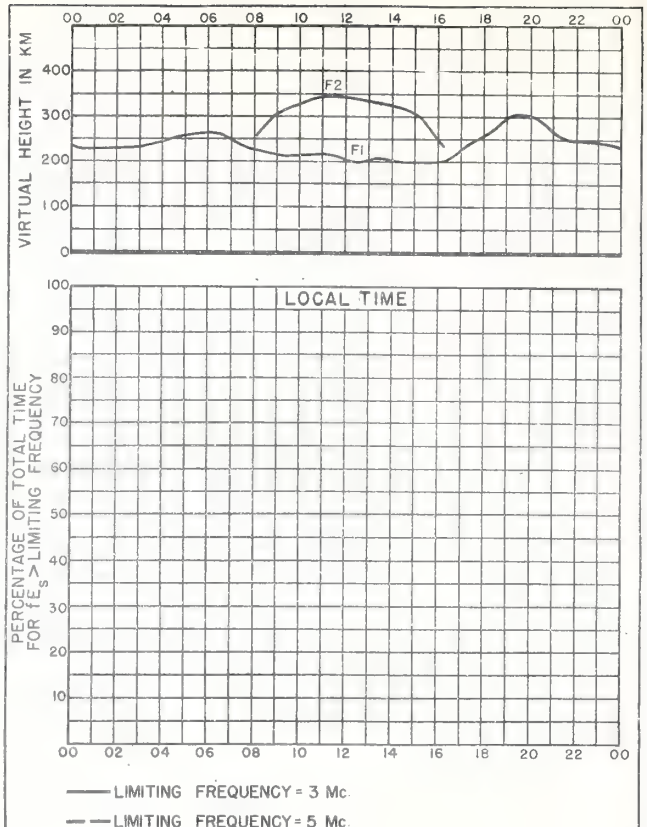

Fig. 10. HUANCAYO, PERU
MARCH, 1945

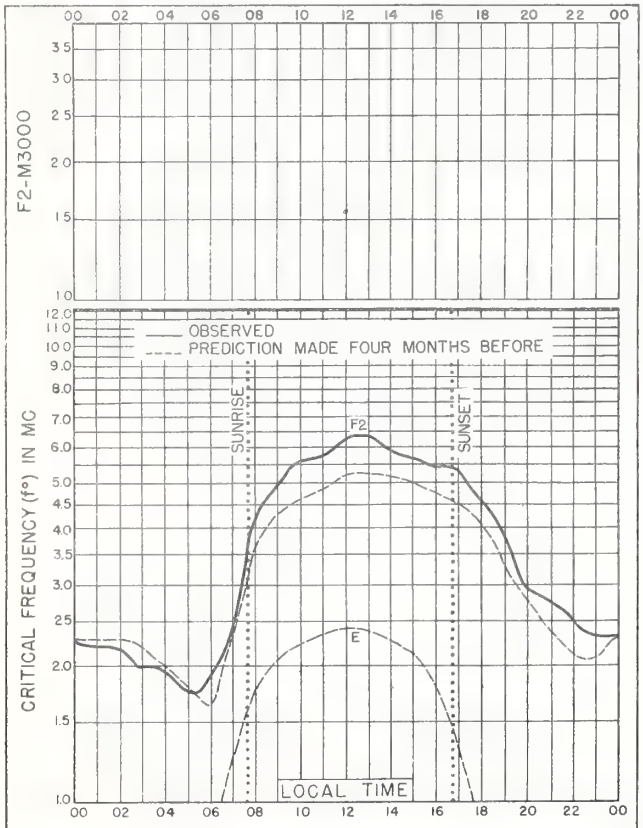

Fig. 11. BURGHEAD, SCOTLAND
57.7°N, 3.5°W
FEBRUARY, 1945

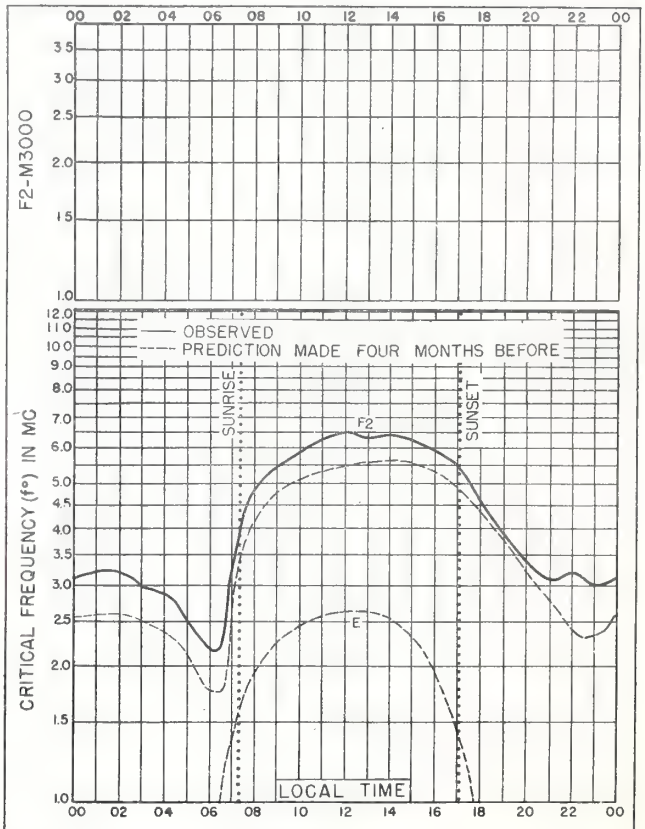

Fig. 12.. SLOUGH, ENGLAND
51.5°N, 0.6°W
FEBRUARY, 1945

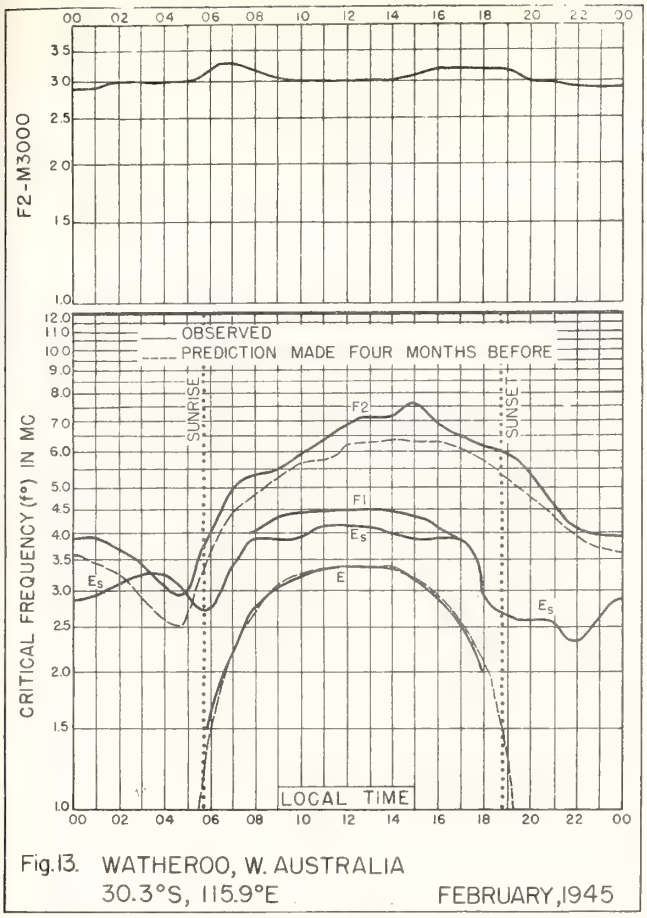

Fig.13. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E FEBRUARY, 1945

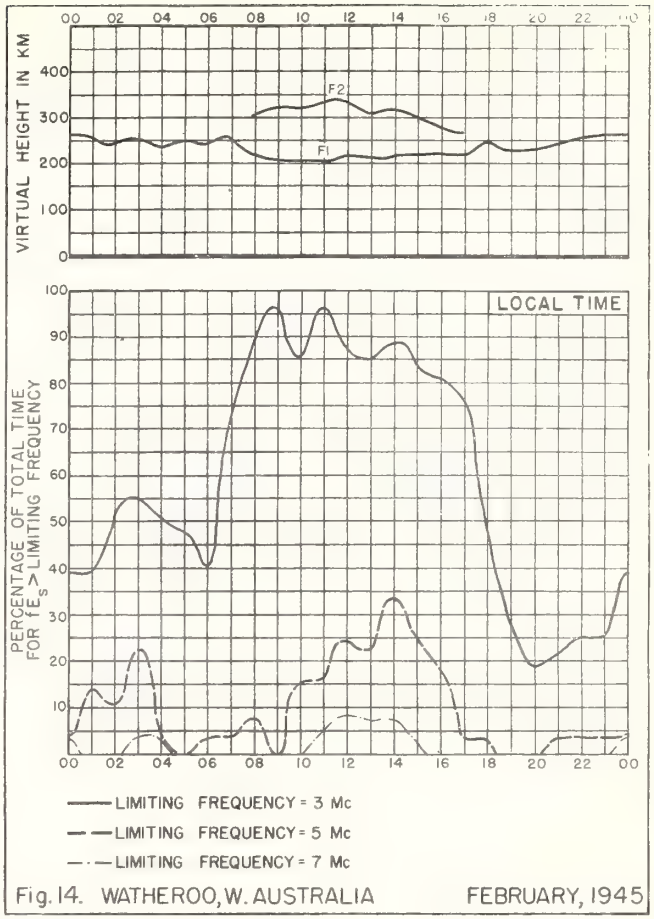

Fig.14. WATHEROO, W. AUSTRALIA FEBRUARY, 1945

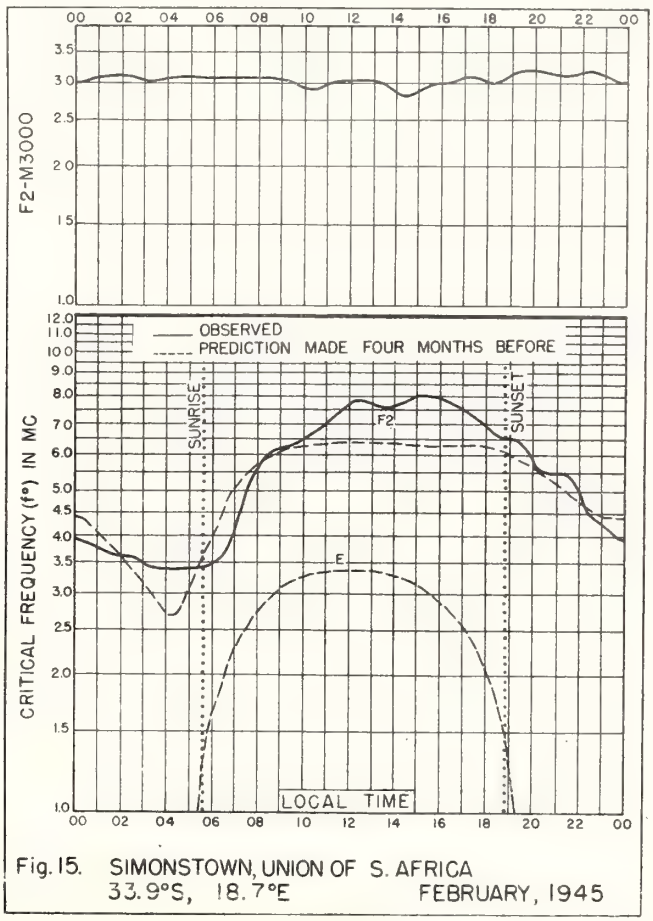

Fig.15. SIMONSTOWN, UNION OF S. AFRICA
33.9°S, 18.7°E FEBRUARY, 1945

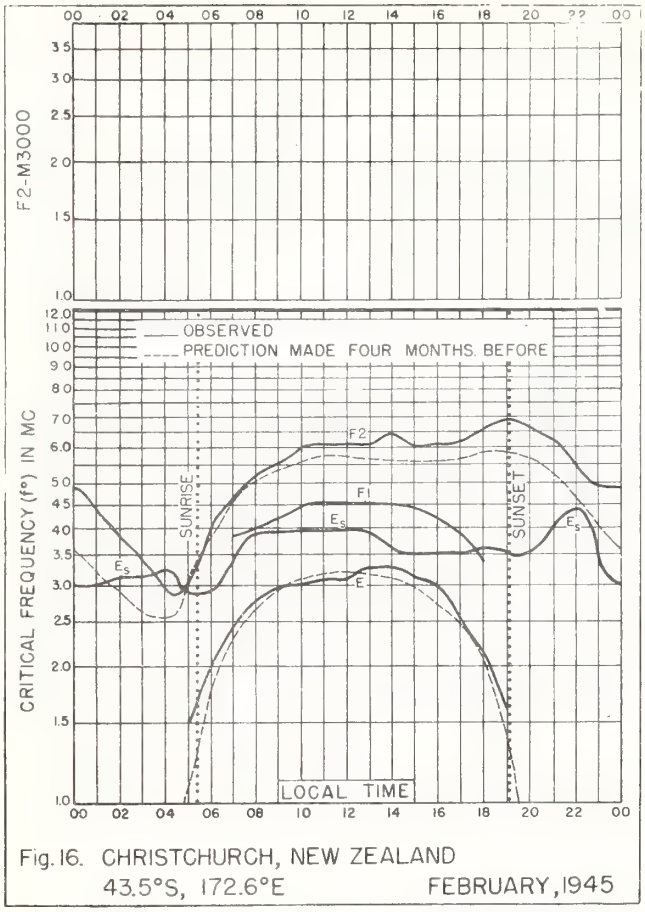

Fig. 16. CHRISTCHURCH, NEW ZEALAND
43.5°S, 172.6°E FEBRUARY, 1945

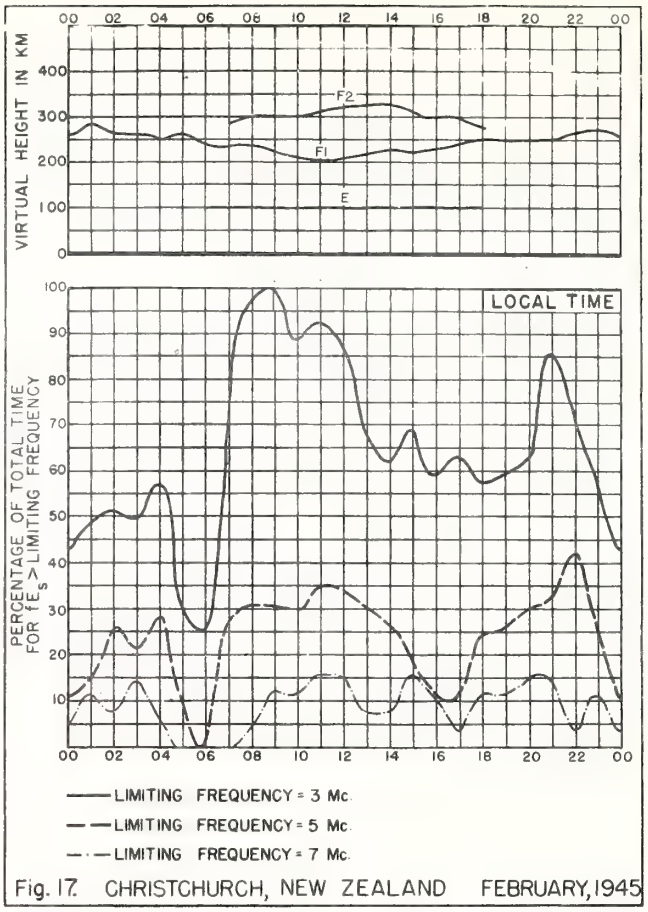

Fig. 17. CHRISTCHURCH, NEW ZEALAND FEBRUARY, 1945

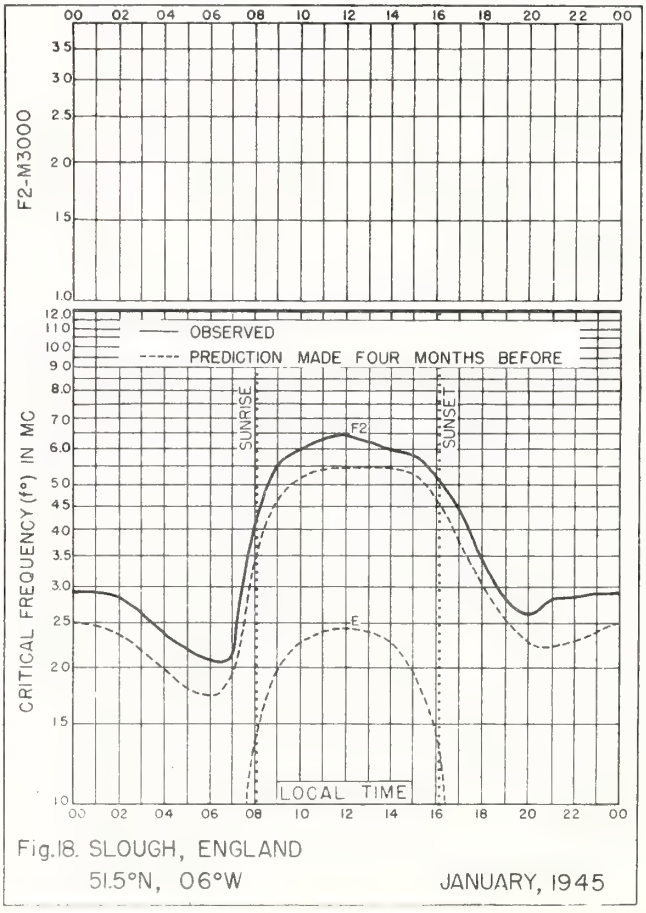

Fig. 18. SLOUGH, ENGLAND
51.5°N, 06°W JANUARY, 1945

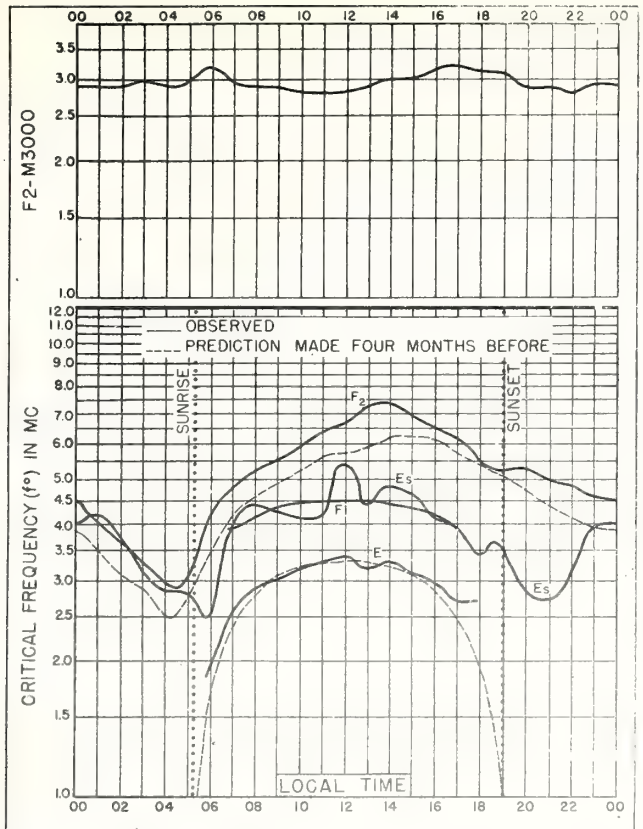

Fig.19. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E JANUARY, 1945

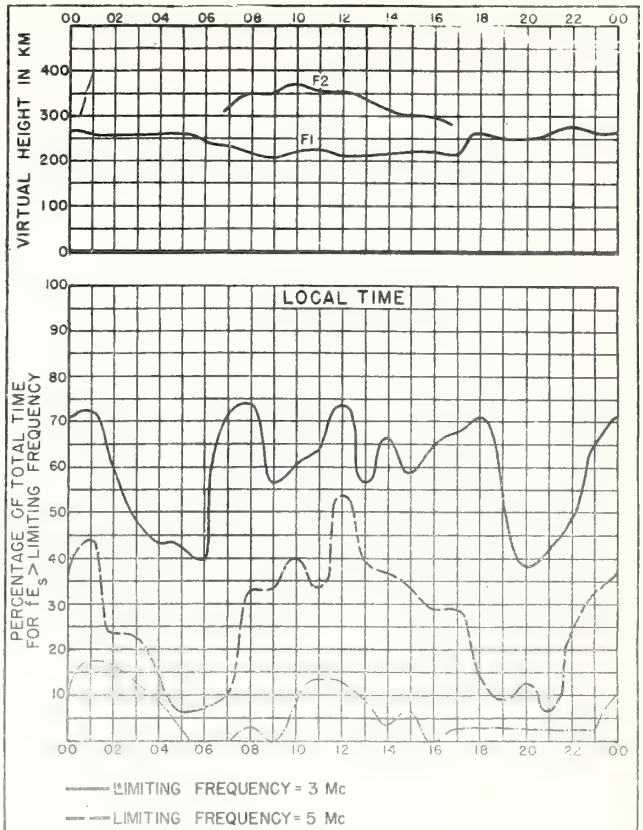

Fig.20. WATHEROO, W. AUSTRALIA JANUARY, 1945

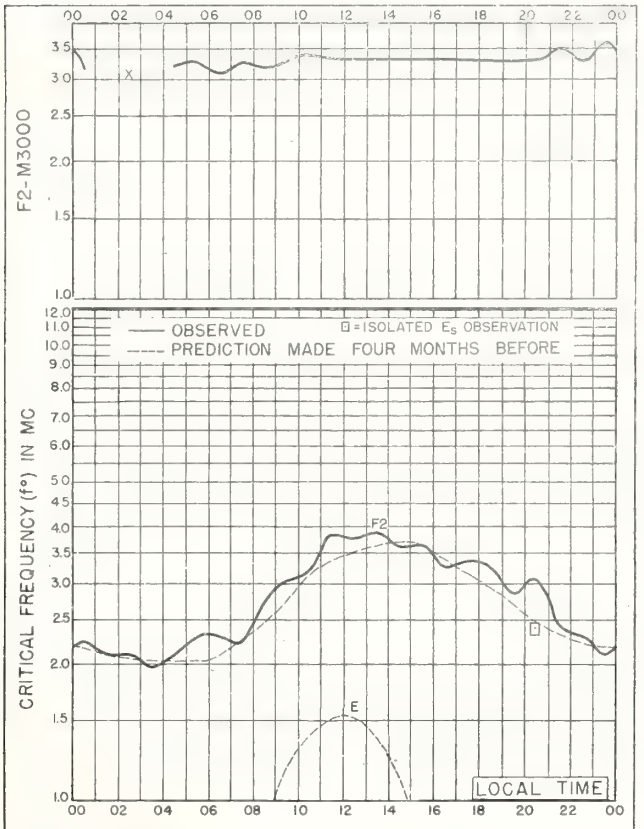

Fig.21. BAFFIN I., CANADA
70.5°N, 68.6°W DECEMBER, 1944

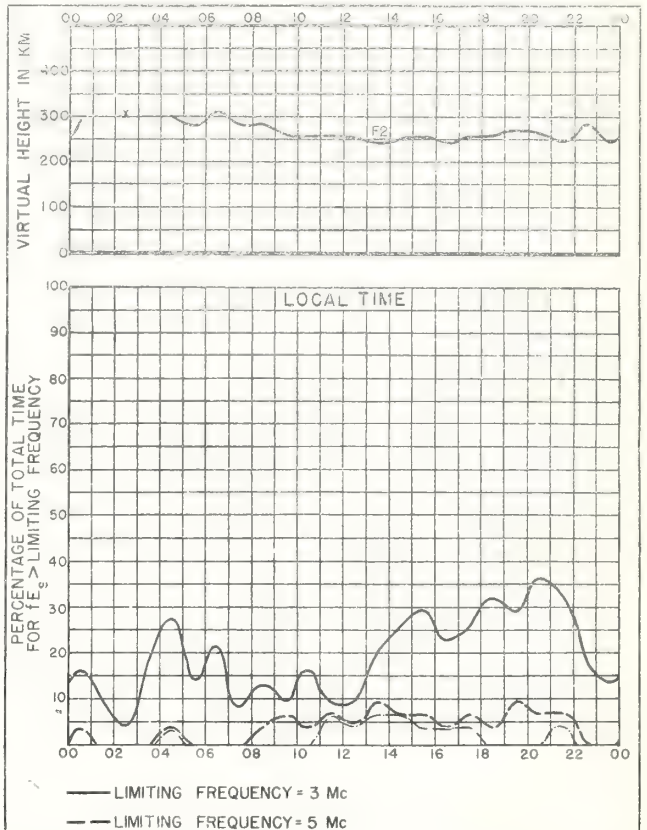

Fig.21. BAFFIN I., CANADA DECEMBER, 1944

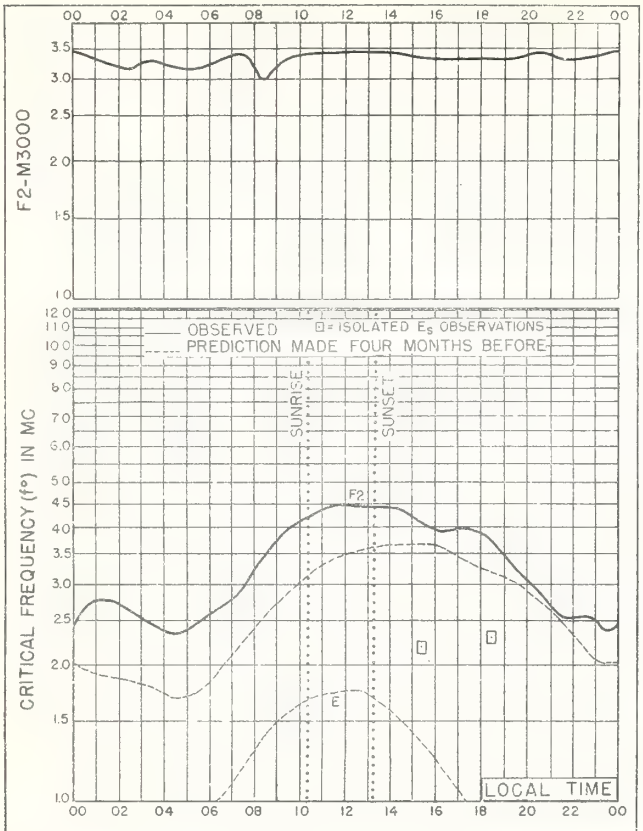

Fig.23. BAFFIN I., CANADA
70.5°N, 68.6°W NOVEMBER, 1944

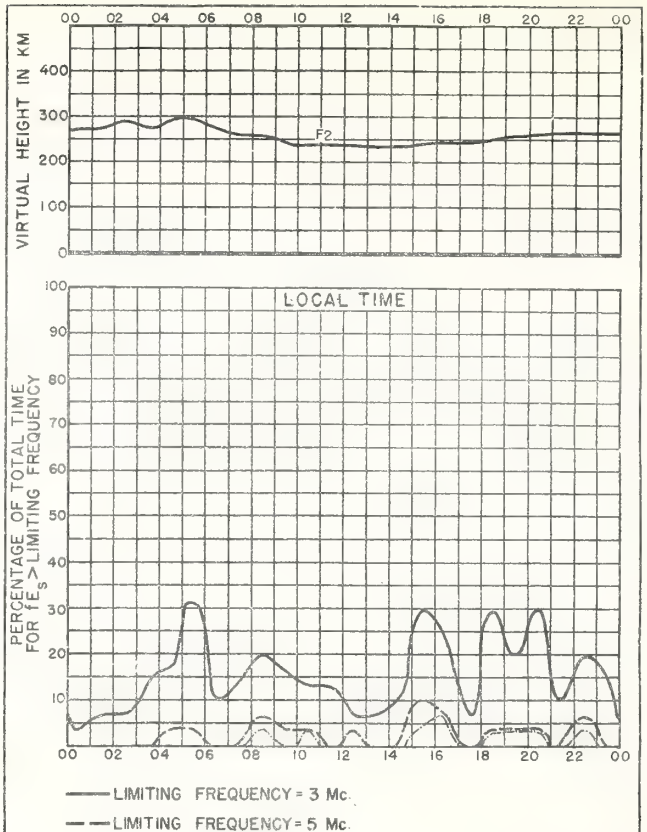

Fig.24. BAFFIN I., CANADA NOVEMBER, 1944

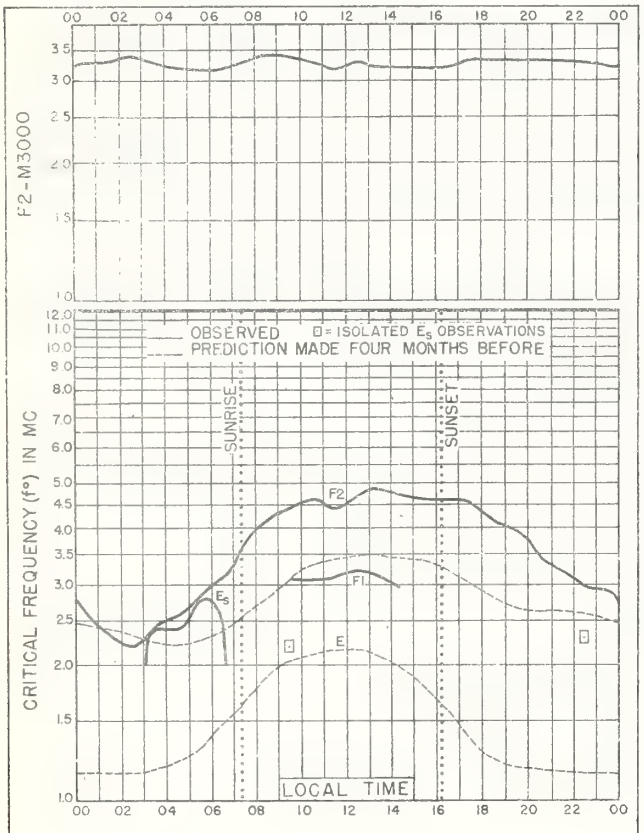

Fig.25. BAFFIN I., CANADA
70.5°N, 68.6°W OCTOBER, 1944

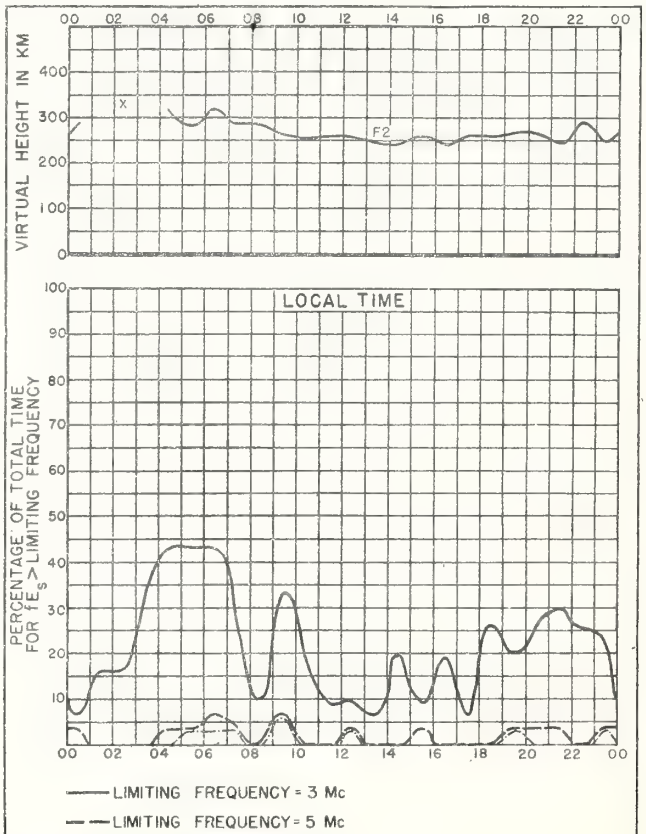

Fig.26. BAFFIN I., CANADA OCTOBER, 1944

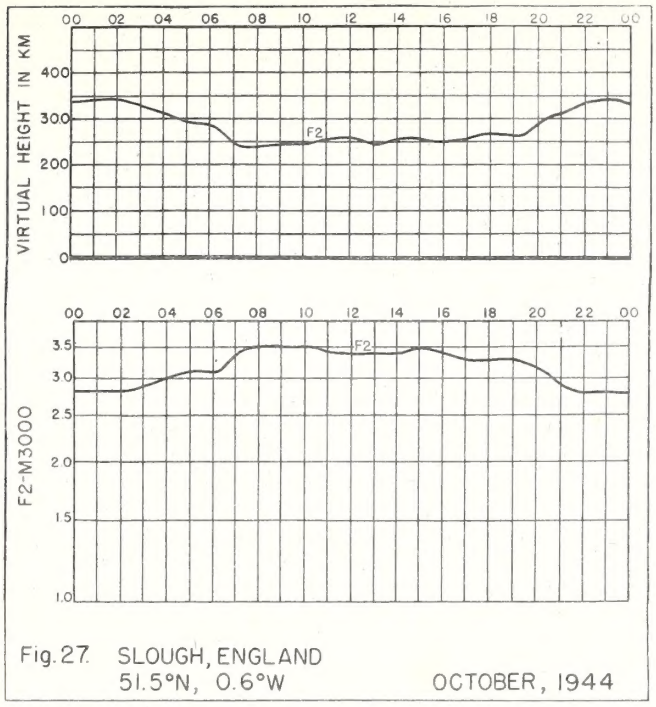

Fig. 27. SLOUGH, ENGLAND
51.5°N, 0.6°W OCTOBER, 1944

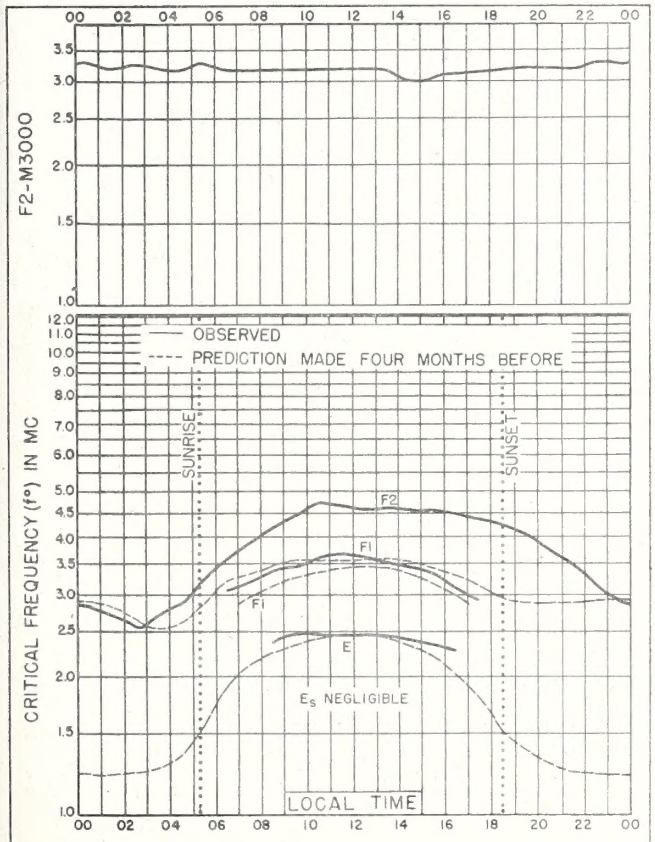

Fig. 28. BAFFIN I., CANADA
70.5°N, 68.6°W SEPTEMBER, 1944

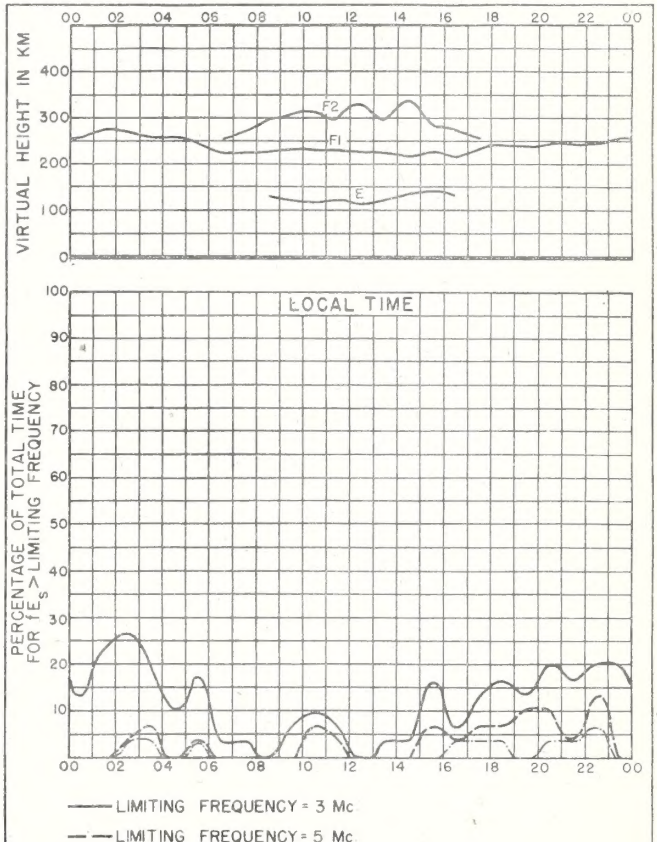

Fig. 29. BAFFIN I., CANADA SEPTEMBER, 1944

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